# Enforcement and Compliance

## Compliance Monitoring History (5 years)

| Statute | Source ID | System | Inspection Type | Lead Agency | Date | Finding |
|---|---|---|---|---|---|---|
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 06/26/2014 | |
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 07/21/2011 | |
| CWA | MSP090697 | ICP | Sampling (IU) | State | 12/14/2010 | |
| CWA | MSP090697 | ICP | Sampling (IU) | State | 12/13/2011 | |
| CWA | MSP090697 | ICP | Sampling (IU) | State | 12/04/2012 | |
| CWA | MSP090697 | ICP | Sampling (IU) | State | 07/14/2015 | |
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 12/13/2011 | |
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 09/20/2012 | |
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 12/14/2010 | |
| CWA | MSP090697 | ICP | Sampling (IU) | State | 01/14/2014 | |
| CAA | MS0000002806700072 | AIR | TV ACC Receipt/Review | State | 02/05/2013 | |
| CAA | MS0000002806700072 | AIR | FCE On-Site | State | 09/13/2011 | |
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 01/22/2015 | |
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 07/27/2010 | |
| CWA | MSP090697 | ICP | Evaluation (IU) | State | 08/27/2013 | |

Entries in italics are not considered inspections in official counts.

## Compliance Summary Data

| Statute | Source ID | Current SNC/HPV | Description | Current As Of | Qtrs in NC (of 12) |
|---|---|---|---|---|---|
| CAA | MS0000002806700072 | No | | 09/26/2015 | 0 |
| CWA | MSP090697 | | | 06/30/2015 | 0 |
| RCRA | MSD981759608 | No | | 09/26/2015 | 0 |

## Three Year Compliance Status by Quarter

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAA (Source ID: MS0000002806700072)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol |
| | HPV History | | | | | | | | | | | | |
| | Violation Type / Programs / Pollutants | | | | | | | | | | | | |

Historic Violations

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CWA (Source ID: MSP090697)** | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | Und |
| | SNC/RNC History | | | | | | | | | | | | | |

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCRA (Source ID: MSD981759608)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| RCRA | Facility-Level Status | | | | | | | | | | | | |

## Informal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|
| Statute | Source ID | Type of Action | Lead Agency | Date |

No data records returned

## Formal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date | Penalty | Penalty Description |
|---|---|---|---|---|---|---|

No data records returned

## ICIS Case History (5 years)

| Primary Law/Section | Case No. | Case Type | Lead Agency | Case Name | Issued/Filed Date | Settlement Date | Federal Penalty | State/Local Penalty | SEP Cost | Comp Action Cost |
|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

# Environmental Conditions

## Water Quality

| Permit ID | Combined Sewer System? | Number of CSO Outfalls | Watershed (HUC 8) | Watershed Name (HUC 8) | Watershed (HUC 12) | Watershed Name (HUC 12) | Receiving Waters | Impaired Waters | Impaired Class | Causes of Impairment(s) by Group(s) | Watershed with ESA -listed Aquatic Species? |
|---|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

## Waterbody Designated Uses

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|

No data records returned

## Air Quality

| Non-Attainment Area? | Pollutant(s) |
|---|---|
| No | Ozone |
| No | Lead |
| No | Particulate Matter |

# Pollutants

## TRI History of Reported Chemicals Released in Pounds per Year at Site ⓘ

TRI Pollution Prevention Report

| TRI Facility ID | Year | Total Air Emissions | Surface Water Discharges | Off-Site Transfers to POTWs | Underground Injections | Releases to Land | Total On-site Releases | Total Off-site Releases |
|---|---|---|---|---|---|---|---|---|
| 39440SNDRS631SA | 2007 | 11,200 | | 3,120 | | | 11,200 | 3,120 |
| 39440SNDRS631SA | 2009 | 10,000 | | 2,600 | | | 10,000 | 2,600 |
| 39440SNDRS631SA | 2010 | 10,000 | | 3,200 | | | 10,000 | 3,200 |
| 39440SNDRS631SA | 2011 | 10,000 | | 3,200 | | | 10,000 | 3,200 |
| 39440SNDRS631SA | 2012 | 15,233 | | 3,650 | | | 15,233 | 3,650 |

## TRI Total Releases and Transfers in Pounds by Chemical and Year

| Chemical Name | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| AMMONIA | | 14,320 | | 12,600 | 13,200 | 13,200 | 18,883 | | |
| COPPER COMPOUNDS | | | | | | | | | |
| MANGANESE COMPOUNDS | | | | | | | | | |

| Chemical Name | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| ZINC COMPOUNDS | | | | | | | | | |

# Demographic Profile

## Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

| | | | | | |
|---|---|---|---|---|---|
| Radius of Area: | 3 | Land Area: | 98% | Households in Area: | 4,626 |
| Center latitude: | 31.666944 | Water Area: | 2% | Housing Units in Area: | 5,362 |
| Center Longitude: | -89.160833 | Population Density: | 465/sq.mi. | Households on Public Assistance: | 130 |
| Total Persons: | 12,944 | Percent Minority: | 70% | Persons Below Poverty Level: | 8,316 |

| Race Breakdown | Persons (%) | Age Breakdown | Persons (%) |
|---|---|---|---|
| White: | 4,315 (33.34%) | Child 5 years and younger: | 1,206 (9.32%) |
| African-American: | 7,593 (58.66%) | Minors 17 years and younger: | 3,744 (28.92%) |
| Hispanic-Origin: | 1,338 (10.34%) | Adults 18 years and older: | 9,200 (71.08%) |
| Asian/Pacific Islander: | 69 (.53%) | Seniors 65 years and older: | 1,687 (13.03%) |
| American Indian: | 23 (.18%) | | |
| Other/Multiracial: | 944 (7.29%) | | |

| Education Level (Persons 25 & older) | Persons (%) | Income Breakdown | Households (%) |
|---|---|---|---|
| Less than 9th Grade: | 1,139 (13.93%) | Less than $15,000: | 1,460 (29.12%) |
| 9th through 12th Grade: | 1,636 (20.01%) | $15,000 - $25,000: | 1,068 (21.3%) |
| High School Diploma: | 2,436 (29.79%) | $25,000 - $50,000: | 1,055 (21.05%) |
| Some College/2-yr: | 2,006 (24.54%) | $50,000 - $75,000: | 752 (15%) |
| B.S./B.A. or More: | 959 (11.73%) | Greater than $75,000: | 678 (13.52%) |

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# Detailed Facility Report

## Facility Summary

**SANDERSON FARMS, INC.**
**1111 N FIRST ST, COLLINS, MS 39428**

### Facility Information (FRS)

FRS ID: 110057788416
EPA Region: 04
Latitude: 31.649997
Longitude: -89.566617
Locational Data Source: TRIS
Industry: Food Manufacturing
Indian Country: N

### Regulatory Interests

Clean Air Act: Operating Synthetic Minor (MS0000002803100003)
Clean Water Act: Minor, Permit Effective (MS0002089)
Resource Conservation and Recovery Act: No Information
Safe Drinking Water Act: No Information

### Also Reports

Air Emissions Inventory (EIS): 7837411
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 39428SNDRSOLDHW

## Enforcement and Compliance Summary

| Statute | Insp (5 Years) | Date of Last Inspection | Current Compliance Status | Qtrs in NC (of 12) | Qtrs in Significant Violation | Informal Enforcement Actions (5 years) | Formal Enforcement Actions (5 years) | Penalties from Formal Enforcement Actions (5 years) | EPA Cases (5 years) | Penalties from EPA Cases (5 years) |
|---|---|---|---|---|---|---|---|---|---|---|
| CAA | 1 | 01/11/2012 | **No Violation** | 0 | 0 | | | | | |
| CWA | 1 | 04/22/2011 | **No Violation** | 2 | 1 | 3 | | | | |

Related Reports: E CWA Effluent Charts L CWA Pollutant Loading Report A Air Pollutant Report

# Facility/System Characteristics

## Facility/System Characteristics

| System | Statute | Identifier | Universe | Status | Areas | Permit Expiration Date | Indian Country | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FRS | | 110057788416 | | | | | N | 31.649997 | -89.566617 |
| AIR | CAA | MS0000002803100003 | Synthetic Minor Emissions | Operating | CAANSPS, CAASIP | | N | | |
| EIS | CAA | 7837411 | | OPERATING | | | N | 31.649189 | -89.566119 |
| ICP | CWA | MS0002089 | Minor: NPDES Individual Permit | Effective | | 03/31/2016 | N | 31.649389 | -89.566194 |
| TRI | EP313 | 39428SNDRSOLDHW | | | | | | 31.649997 | -89.566617 |

## Facility Address

| System | Statute | Identifier | Facility Name | Facility Address |
|---|---|---|---|---|
| FRS | | 110057788416 | SANDERSON FARMS, INC. | 1111 N FIRST ST, COLLINS, MS 39428 |
| AIR | CAA | MS0000002803100003 | SANDERSON FARMS, COLLINS REND & PROC FAC | 1111 NORTH FIRST AVENUE, COLLINS, MS 39428 |
| EIS | CAA | 7837411 | SANDERSON FARMS INC, COLLINS PROCESSING FACILITY | 1111 NORTH FIRST AVENUE, COLLINS, MS 39428 |
| ICP | CWA | MS0002089 | SANDERSON FARMS INC | 111 NORTH FIRST AVENUE, COLLINS, MS 39428 |
| TRI | EP313 | 39428SNDRSOLDHW | SANDERSON FARMS INC | 1111 N FIR AVE, COLLINS, MS 39428 |

## Facility SIC Codes

| System | Identifier | SIC Code | SIC Desc |
|---|---|---|---|
| TRI | 39428SNDRSOLDHW | 2015 | Poultry Slaughtering And Processing |
| TRI | 39428SNDRSOLDHW | 2016 | Legacy Docket Conv |
| AIR | MS0000002803100003 | 2015 | Poultry Slaughtering And Processing |
| ICP | MS0002089 | 2015 | Poultry Slaughtering And Processing |

## Facility NAICS Codes

| System | Identifier | NAICS Code | NAICS Desc |
|---|---|---|---|
| TRI | 39428SNDRSOLDHW | 311615 | Poultry Processing |
| EIS | 7837411 | 311615 | Poultry Processing |
| AIR | MS0000002803100003 | 311615 | Poultry Processing |

## Facility Tribe Information

| Tribal Name | EPA Tribal ID | Distance to Tribe (miles) |
|---|---|---|

No data records returned

# Enforcement and Compliance

## Compliance Monitoring History (5 years)

| Statute | Source ID | System | Inspection Type | Lead Agency | Date | Finding |
|---|---|---|---|---|---|---|
| CWA | MS0002089 | ICP | Evaluation | State | 04/22/2011 | |
| CAA | MS0000002803100003 | AIR | PCE Off-Site | EPA | 08/11/2011 | |
| CAA | MS0000002803100003 | AIR | FCE On-Site | State | 01/11/2012 | |

Entries in italics are not considered inspections in official counts.

## Compliance Summary Data

| Statute | Source ID | Current SNC/HPV | Description | Current As Of | Qtrs in NC (of 12) |
|---|---|---|---|---|---|
| CAA | MS0000002803100003 | No | | 09/26/2015 | 0 |
| CWA | MS0002089 | | | 06/30/2015 | 2 |

## Three Year Compliance Status by Quarter

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAA (Source ID: MS0000002803100003)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol |
| | HPV History | | | | | | | | | | | | |
| | Violation Type / Programs / Pollutants | | | | | | | | | | | | |

Historic Violations

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CWA (Source ID: MS0002089)** | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | In Viol | No Viol | SNC/Cat 1 | No Viol | No Viol | No Viol | No Viol | No Viol | Und |
| | SNC/RNC History | | | | | V (NonRNCV) | | E(EffViol) | R(Resolvd) | | | | | |
| | Pollutant / Discharge Point / Frequency | | | | | | | | | | | | | |
| CWA | Nitrogen, total [as N] / 001 / NMth | | | | | 16% | | | | | | | | |

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

## Informal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|
| CWA | MS0002089 | Letter of Violation/ Warning Letter | State | 03/24/2011 |
| CWA | MS0002089 | Letter of Violation/ Warning Letter | State | 05/01/2014 |
| CWA | MS0002089 | Letter of Violation/ Warning Letter | State | 10/26/2010 |

## Formal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date | Penalty | Penalty Description |
|---|---|---|---|---|---|---|

No data records returned

## ICIS Case History (5 years)

| Primary Law/Section | Case No. | Case Type | Lead Agency | Case Name | Issued/Filed Date | Settlement Date | Federal Penalty | State/Local Penalty | SEP Cost | Comp Action Cost |
|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

# Environmental Conditions

## Water Quality

| Permit ID | Combined Sewer System? | Number of CSO Outfalls | Watershed (HUC 8) | Watershed Name (HUC 8) | Watershed (HUC 12) | Watershed Name (HUC 12) | Receiving Waters | Impaired Waters | Impaired Class | Causes of Impairment(s) by Group(s) | Watershed with ESA-listed Aquatic Species? |
|---|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

## Waterbody Designated Uses

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|

No data records returned

## Air Quality

| Non-Attainment Area? | Pollutant(s) |
|---|---|
| No | Ozone |
| No | Lead |
| No | Particulate Matter |

# Pollutants

## TRI History of Reported Chemicals Released in Pounds per Year at Site ⓘ

TRI Pollution Prevention Report

| TRI Facility ID | Year | Total Air Emissions | Surface Water Discharges | Off-Site Transfers to POTWs | Underground Injections | Releases to Land | Total On-site Releases | Total Off-site Releases |
|---|---|---|---|---|---|---|---|---|
| 39428SNDRSOLDHW | 2006 | 27,710 | 243,630 | 0 | | | 271,340 | |
| 39428SNDRSOLDHW | 2007 | 25,030 | 303,240 | 0 | | | 328,270 | |
| 39428SNDRSOLDHW | 2008 | 23,800 | 179,080 | 0 | | | 202,880 | |
| 39428SNDRSOLDHW | 2009 | 11,500 | 151,400 | 0 | | | 162,900 | |
| 39428SNDRSOLDHW | 2010 | 13,000 | 144,940 | 0 | | | 157,940 | |
| 39428SNDRSOLDHW | 2011 | 10,000 | 158,150 | 0 | | | 168,150 | |
| 39428SNDRSOLDHW | 2012 | 19,920 | 167,414 | 0 | | | 187,334 | |
| 39428SNDRSOLDHW | 2013 | 30,270 | 228,500 | 0 | | | 258,770 | |
| 39428SNDRSOLDHW | 2014 | 10,550 | 192,540 | 0 | | | 203,090 | |

## TRI Total Releases and Transfers in Pounds by Chemical and Year

| Chemical Name | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| AMMONIA | 29,640 | 25,530 | 24,750 | 11,990 | 13,250 | 11,590 | 19,740 | 29,880 | 10,240 |
| CHLORINE | | | | | | | 780 | 790 | 550 |
| HYDROGEN SULFIDE | | | | | | | | | |
| NITRATE COMPOUNDS | 241,700 | 302,740 | 178,130 | 150,910 | 144,690 | 156,560 | 166,814 | 228,100 | 192,300 |
| PERACETIC ACID | | | | | | 0 | | 0 | 0 |

# Demographic Profile

## Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

| | | | | | |
|---|---|---|---|---|---|
| Radius of Area: | 3 | Land Area: | 100% | Households in Area: | 1,364 |
| Center latitude: | 31.649997 | Water Area: | 0% | Housing Units in Area: | 1,545 |
| Center Longitude: | -89.566617 | Population Density: | 135/sq.mi. | Households on Public Assistance: | 17 |
| Total Persons: | 3,736 | Percent Minority: | 49% | Persons Below Poverty Level: | 2,014 |

| Race Breakdown | Persons (%) | Age Breakdown | Persons (%) |
|---|---|---|---|
| White: | 1,940 (51.93%) | Child 5 years and younger: | 269 (7.2%) |
| African-American: | 1,644 (44%) | Minors 17 years and younger: | 919 (24.6%) |
| Hispanic-Origin: | 137 (3.67%) | Adults 18 years and older: | 2,817 (75.4%) |
| Asian/Pacific Islander: | 10 (.27%) | Seniors 65 years and older: | 784 (20.99%) |
| American Indian: | 5 (.13%) | | |
| Other/Multiracial: | 137 (3.67%) | | |

| Education Level (Persons 25 & older) | Persons (%) | Income Breakdown | Households (%) |
|---|---|---|---|
| Less than 9th Grade: | 181 (8.02%) | Less than $15,000: | 511 (33.93%) |
| 9th through 12th Grade: | 269 (11.92%) | $15,000 - $25,000: | 201 (13.35%) |
| High School Diploma: | 772 (34.22%) | $25,000 - $50,000: | 416 (27.62%) |
| Some College/2-yr: | 672 (29.79%) | $50,000 - $75,000: | 170 (11.29%) |
| B.S./B.A. or More: | 362 (16.05%) | Greater than $75,000: | 208 (13.81%) |

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# Detailed Facility Report

## Facility Summary

**SANDERSON FARMS INC**
**2000 SHILOH DR., BRYAN, TX 77803**

### Facility Information (FRS)

FRS ID: 110000464275
EPA Region: 06
Latitude: 30.649634
Longitude: -96.415478
Locational Data Source: RMP
Industry: Food Manufacturing
Indian Country: N

### Regulatory Interests

Clean Air Act: (100000088264)
Clean Water Act: Minor, Permit Effective (TX0113603)
Resource Conservation and Recovery Act: Active (H ) CESQG (TXR000052639)
Safe Drinking Water Act: No Information

### Also Reports

Air Emissions Inventory (EIS): 6584911
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 77803SNDRS2000S

## Enforcement and Compliance Summary

| Statute | Insp (5 Years) | Date of Last Inspection | Current Compliance Status | Qtrs in NC (of 12) | Qtrs in Significant Violation | Informal Enforcement Actions (5 years) | Formal Enforcement Actions (5 years) | Penalties from Formal Enforcement Actions (5 years) | EPA Cases (5 years) | Penalties from EPA Cases (5 years) |
|---|---|---|---|---|---|---|---|---|---|---|
| CAA | 1 | 02/01/2013 | | | | | | | | |
| CWA | | | **Noncompliance** | 12 | 0 | | | | | |
| RCRA | | 06/02/2005 | **No Violation** | 0 | 0 | | | | | |

Related Reports: E CWA Effluent Charts L CWA Pollutant Loading Report A Air Pollutant Report

# Facility/System Characteristics

## Facility/System Characteristics

| System | Statute | Identifier | Universe | Status | Areas | Permit Expiration Date | Indian Country | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FRS | | 110000464275 | | | | | N | 30.649634 | -96.415478 |
| EIS | CAA | 6584911 | | OPERATING | | | N | 30.64333 | -96.4175 |
| RMP | CAA | 100000088264 | | ACTIVE | | | | | |
| ICP | CWA | TX0113603 | Minor: NPDES Individual Permit | Effective | | 12/01/2018 | N | 30.64325 | -96.417722 |
| TRI | EP313 | 77803SNDRS2000S | | | | | | 30.649634 | -96.415478 |
| RCR | RCRA | TXR000052639 | CESQG | Active (H ) | | | N | | |

## Facility Address

| System | Statute | Identifier | Facility Name | Facility Address |
|---|---|---|---|---|
| FRS | | 110000464275 | SANDERSON FARMS INC | 2000 SHILOH DR., BRYAN, TX 77803 |
| EIS | CAA | 6584911 | SANDERSON FARMS INC | 2000 SHILOH DR., BRYAN, TX 77805 |
| RMP | CAA | 100000088264 | SANDERSON FARMS, INC. | 2000 SHILOH DRIVE, BRYAN, TX 77803 |
| ICP | CWA | TX0113603 | PROCESSING DIVISION WWTP | 2000 SHILOH DRIVE, BRYAN, TX 77803 |
| TRI | EP313 | 77803SNDRS2000S | SANDERSON FARMS INC | 2000 SHILOH DR, BRYAN, TX 77803 |
| RCR | RCRA | TXR000052639 | SANDERSON FARMS INC BRAZOS PROCESSING | 2000 SHILOH AVE, BRYAN, TX 77803 |

## Facility SIC Codes

| System | Identifier | SIC Code | SIC Desc |
|---|---|---|---|
| TRI | 77803SNDRS2000S | 2015 | Poultry Slaughtering And Processing |
| ICP | TX0113603 | 2015 | Poultry Slaughtering And Processing |

## Facility NAICS Codes

| System | Identifier | NAICS Code | NAICS Desc |
|---|---|---|---|
| RMP | 100000088264 | 311615 | Poultry Processing |
| EIS | 6584911 | 311615 | Poultry Processing |
| TRI | 77803SNDRS2000S | 311615 | Poultry Processing |

## Facility Tribe Information

| Tribal Name | EPA Tribal ID | Distance to Tribe (miles) |
|---|---|---|

No data records returned

# Enforcement and Compliance

## Compliance Monitoring History (5 years)

| Statute | Source ID | System | Inspection Type | Lead Agency | Date | Finding |
|---|---|---|---|---|---|---|
| CAA / §112[R][7] | 3400050689 | ICIS | Evaluation | EPA | 02/01/2013 | |

Entries in italics are not considered inspections in official counts.

## Compliance Summary Data

| Statute | Source ID | Current SNC/HPV | Description | Current As Of | Qtrs in NC (of 12) |
|---|---|---|---|---|---|
| CWA | TX0113603 | | | 06/30/2015 | 12 |
| RCRA | TXR000052639 | No | | 09/26/2015 | 0 |

## Three Year Compliance Status by Quarter

| Statute | Program/Pollutant/Violation Type | | | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CWA (Source ID: TX0113603)** | | | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | | | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | Und |
| | SNC/RNC History | | | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | |
| | Pollutant | Discharge Point | Frequency | | | | | | | | | | | | | |
| CWA | Coliform, fecal general | 001 | NMth | | | | | | | | | | | | 47% | |

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCRA (Source ID: TXR000052639)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| RCRA | Facility-Level Status | | | | | | | | | | | | |

## Informal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|

No data records returned

## Formal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date | Penalty | Penalty Description |
|---|---|---|---|---|---|---|

No data records returned

## ICIS Case History (5 years)

| Primary Law/Section | Case No. | Case Type | Lead Agency | Case Name | Issued/Filed Date | Settlement Date | Federal Penalty | State/Local Penalty | SEP Cost | Comp Action Cost |
|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

# Environmental Conditions

## Water Quality

| Permit ID | Combined Sewer System? | Number of CSO Outfalls | Watershed (HUC 8) | Watershed Name (HUC 8) | Watershed (HUC 12) | Watershed Name (HUC 12) | Receiving Waters | Impaired Waters | Impaired Class | Causes of Impairment(s) by Group(s) | Watershed with ESA -listed Aquatic Species? |
|---|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

## Waterbody Designated Uses

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|

No data records returned

## Air Quality

| Non-Attainment Area? | Pollutant(s) |
|---|---|
| No | Ozone |
| No | Lead |
| No | Particulate Matter |

# Pollutants

## TRI History of Reported Chemicals Released in Pounds per Year at Site ⓘ

TRI Pollution Prevention Report

| TRI Facility ID | Year | Total Air Emissions | Surface Water Discharges | Off-Site Transfers to POTWs | Underground Injections | Releases to Land | Total On-site Releases | Total Off-site Releases |
|---|---|---|---|---|---|---|---|---|
| 77803SNDRS2000S | 2006 | | 179,000 | 0 | | | 179,000 | |
| 77803SNDRS2000S | 2007 | | 272,970 | 0 | | | 272,970 | |
| 77803SNDRS2000S | 2008 | | 522,600 | 0 | | | 522,600 | |
| 77803SNDRS2000S | 2009 | 11,520 | 308,490 | 0 | | | 320,010 | |
| 77803SNDRS2000S | 2010 | | 346,000 | 0 | | | 346,000 | |
| 77803SNDRS2000S | 2011 | | 347,200 | 0 | | | 347,200 | |
| 77803SNDRS2000S | 2012 | 660 | 301,200 | 0 | | | 301,860 | |
| 77803SNDRS2000S | 2013 | 600 | 289,000 | 0 | | | 289,600 | |
| 77803SNDRS2000S | 2014 | 600 | 257,000 | 0 | | | 257,600 | |

## TRI Total Releases and Transfers in Pounds by Chemical and Year

| Chemical Name | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| AMMONIA | | | | 11,910 | | | | | |
| HYDROGEN SULFIDE | | | | | | | 660 | 600 | 600 |
| NITRATE COMPOUNDS | 179,000 | 272,970 | 522,600 | 308,100 | 346,000 | 347,200 | 301,200 | 289,000 | 257,000 |

# Demographic Profile

## Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census

and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

| | | | | | |
|---|---|---|---|---|---|
| Radius of Area: | 3 | Land Area: | 100% | Households in Area: | 9,654 |
| Center latitude: | 30.650278 | Water Area: | 0% | Housing Units in Area: | 10,861 |
| Center Longitude: | -96.409167 | Population Density: | 1,051/sq.mi. | Households on Public Assistance: | 703 |
| Total Persons: | 29,381 | Percent Minority: | 73% | Persons Below Poverty Level: | 17,050 |

| Race Breakdown | Persons (%) | Age Breakdown | Persons (%) |
|---|---|---|---|
| White: | 16,386 (55.77%) | Child 5 years and younger: | 2,953 (10.05%) |
| African-American: | 6,475 (22.04%) | Minors 17 years and younger: | 8,642 (29.41%) |
| Hispanic-Origin: | 14,705 (50.05%) | Adults 18 years and older: | 20,738 (70.58%) |
| Asian/Pacific Islander: | 193 (.66%) | Seniors 65 years and older: | 1,725 (5.87%) |
| American Indian: | 182 (.62%) | | |
| Other/Multiracial: | 6,144 (20.91%) | | |

| Education Level (Persons 25 & older) | Persons (%) | Income Breakdown | Households (%) |
|---|---|---|---|
| Less than 9th Grade: | 2,659 (18.75%) | Less than $15,000: | 2,209 (24%) |
| 9th through 12th Grade: | 2,521 (17.77%) | $15,000 - $25,000: | 1,691 (18.37%) |
| High School Diploma: | 4,088 (28.82%) | $25,000 - $50,000: | 2,570 (27.92%) |
| Some College/2-yr: | 2,616 (18.44%) | $50,000 - $75,000: | 1,444 (15.69%) |
| B.S./B.A. or More: | 2,301 (16.22%) | Greater than $75,000: | 1,290 (14.02%) |

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# Detailed Facility Report

## Facility Summary

**SANDERSON FARMS, INC.**
**28163 HWY 28 EAST, HAZLEHURST, MS 39083** ⓘ

### Facility Information (FRS)

FRS ID: 110055519979
EPA Region: 04
Latitude: 31.876111
Longitude: -90.380556
Locational Data Source: RMP
Industry: Food Manufacturing
Indian Country: N

### Regulatory Interests

Clean Air Act: Operating Minor (MS0000002802900023), (100000109553)
Clean Water Act: Minor, Permit Effective (MS0044725)
Resource Conservation and Recovery Act: Inactive ( ) Other (MSD981759780)
Safe Drinking Water Act: No Information

### Also Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 39083SNDRSHIGHW

## Enforcement and Compliance Summary

| Statute | Insp (5 Years) | Date of Last Inspection | Current Compliance Status | Qtrs in NC (of 12) | Qtrs in Significant Violation | Informal Enforcement Actions (5 years) | Formal Enforcement Actions (5 years) | Penalties from Formal Enforcement Actions (5 years) | EPA Cases (5 years) | Penalties from EPA Cases (5 years) |
|---|---|---|---|---|---|---|---|---|---|---|
| CAA | 1 | 02/03/2011 | **No Violation** | 0 | 0 | | | | | |
| CWA | 1 | 12/20/2010 | **Noncompliance** | 4 | 0 | 6 | | | | |
| RCRA | | | **No Violation** | 0 | 0 | | | | | |

Related Reports: E CWA Effluent Charts L CWA Pollutant Loading Report A Air Pollutant Report I Enforcement Case Report

# Facility/System Characteristics

## Facility/System Characteristics

| System | Statute | Identifier | Universe | Status | Areas | Permit Expiration Date | Indian Country | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FRS | | 110055519979 | | | | | N | 31.876111 | -90.380556 |
| AIR | CAA | MS0000002802900023 | Minor Emissions | Operating | CAANSPS, CAASIP | | N | | |
| RMP | CAA | 100000109553 | | ACTIVE | | | | | |
| ICP | CWA | MS0044725 | Minor: NPDES Individual Permit | Effective | | 07/31/2019 | N | 31.875583 | -90.379056 |
| TRI | EP313 | 39083SNDRSHIGHW | | | | | | 31.875583 | -90.379056 |
| RCR | RCRA | MSD981759780 | Other | Inactive ( ) | | | N | | |

## Facility Address

| System | Statute | Identifier | Facility Name | Facility Address |
|---|---|---|---|---|
| FRS | | 110055519979 | SANDERSON FARMS, INC. | 28163 HWY 28 EAST, HAZLEHURST, MS 39083 |
| AIR | CAA | MS0000002802900023 | SANDERSON FARMS, HAZLEHURST PROCESSING | 28163 HIGHWAY 28 EAST, HAZLEHURST, MS 39083 |
| RMP | CAA | 100000109553 | SANDERSON FARMS, INC. | 333 HIGHWAY 28 EAST, HAZLEHURST, MS 39083 |
| ICP | CWA | MS0044725 | SANDERSON FARMS INC | 28163 HIGHWAY 28 EAST, HAZELHURST, MS 39083 |
| TRI | EP313 | 39083SNDRSHIGHW | SANDERSON FARMS INC | 28163 HWY 28E, HAZLEHURST, MS 39083 |
| RCR | RCRA | MSD981759780 | SANDERSON FARMS, INC. | HIGHWAY 28 BY-PASS, HAZLEHURST, MS 39083 |

## Facility SIC Codes

| System | Identifier | SIC Code | SIC Desc |
|---|---|---|---|
| TRI | 39083SNDRSHIGHW | 2015 | Poultry Slaughtering And Processing |
| AIR | MS0000002802900023 | 2015 | Poultry Slaughtering And Processing |
| ICP | MS0044725 | 2015 | Poultry Slaughtering And Processing |

## Facility NAICS Codes

| System | Identifier | NAICS Code | NAICS Desc |
|---|---|---|---|
| RMP | 100000109553 | 311615 | Poultry Processing |
| TRI | 39083SNDRSHIGHW | 311615 | Poultry Processing |
| AIR | MS0000002802900023 | 311615 | Poultry Processing |
| ICP | MS0044725 | 311615 | Poultry Processing |

## Facility Tribe Information

| Tribal Name | EPA Tribal ID | Distance to Tribe (miles) |
|---|---|---|

No data records returned

# Enforcement and Compliance

## Compliance Monitoring History (5 years)

| Statute | Source ID | System | Inspection Type | Lead Agency | Date | Finding |
|---|---|---|---|---|---|---|
| CWA | MS0044725 | ICP | Evaluation | State | 12/20/2010 | |
| CAA | MS0000002802900023 | AIR | TV ACC Receipt/Review | State | 02/05/2013 | |
| CAA | MS0000002802900023 | AIR | FCE On-Site | State | 02/03/2011 | |

Entries in italics are not considered inspections in official counts.

## Compliance Summary Data

| Statute | Source ID | Current SNC/HPV | Description | Current As Of | Qtrs in NC (of 12) |
|---|---|---|---|---|---|
| CAA | MS0000002802900023 | No | | 09/26/2015 | 0 |
| CWA | MS0044725 | | | 06/30/2015 | 3 |
| RCRA | MSD981759780 | No | | 09/26/2015 | 0 |

## Three Year Compliance Status by Quarter

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAA (Source ID: MS0000002802900023)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol |
| | HPV History | | | | | | | | | | | | |

| Violation Type | Programs | Pollutants |
|---|---|---|

Historic Violations

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CWA (Source ID: MS0044725)** | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | In Viol | No Viol | In Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | In Viol | Und |
| | SNC/RNC History | | V (NonRNCV) | | V (NonRNCV) | | | | | | | | V (NonRNCV) | |

| | Pollutant | Discharge Point | Frequency | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CWA | Chlorine, total residual | 001 | NMth | | | 163% | | | | | | | | |
| CWA | Coliform, fecal general | 001 | NMth | | 16% | 92% | | | | | | | | |
| CWA | Nitrogen, ammonia total [as N] | 001 | NMth | | | | | | | | | | 84% | |

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCRA (Source ID: MSD981759780)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| RCRA | Facility-Level Status | | | | | | | | | | | | |

## Informal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 08/07/2012 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 02/25/2013 |

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 01/25/2011 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 08/28/2015 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 09/23/2011 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 08/18/2011 |

## Formal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date | Penalty | Penalty Description |
|---|---|---|---|---|---|---|
| No data records returned | | | | | | |

## ICIS Case History (5 years)

| Primary Law/Section | Case No. | Case Type | Lead Agency | Case Name | Issued/Filed Date | Settlement Date | Federal Penalty | State/Local Penalty | SEP Cost | Comp Action Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| CERCLA / §103A | 04-2012-2072 | Administrative - Formal | EPA | SANDERSON FARMS, INC. | 07/10/2012 | 07/10/2012 | $1,430 | $0 | $0 | $100 |

# Environmental Conditions

## Water Quality

| Permit ID | Combined Sewer System? | Number of CSO Outfalls | Watershed (HUC 8) | Watershed Name (HUC 8) | Watershed (HUC 12) | Watershed Name (HUC 12) | Receiving Waters | Impaired Waters | Impaired Class | Causes of Impairment(s) by Group(s) | Watershed with ESA -listed Aquatic Species? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| No data records returned | | | | | | | | | | | |

## Waterbody Designated Uses

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|
| No data records returned | | | | | | | |

## Air Quality

| Non-Attainment Area? | Pollutant(s) |
|---|---|
| No | Ozone |
| No | Lead |
| No | Particulate Matter |

# Pollutants

## TRI History of Reported Chemicals Released in Pounds per Year at Site ⓘ

TRI Pollution Prevention Report

| TRI Facility ID | Year | Total Air Emissions | Surface Water Discharges | Off-Site Transfers to POTWs | Underground Injections | Releases to Land | Total On-site Releases | Total Off-site Releases |
|---|---|---|---|---|---|---|---|---|
| 39083SNDRSHIGHW | 2006 | | 149,900 | 0 | | | 149,900 | |
| 39083SNDRSHIGHW | 2007 | | 168,350 | 0 | | | 168,350 | |
| 39083SNDRSHIGHW | 2008 | | 310,380 | 0 | | | 310,380 | |
| 39083SNDRSHIGHW | 2009 | | 294,890 | 0 | | | 294,890 | |
| 39083SNDRSHIGHW | 2010 | | 173,200 | 0 | | | 173,200 | |
| 39083SNDRSHIGHW | 2011 | | 132,800 | 0 | | | 132,800 | |
| 39083SNDRSHIGHW | 2012 | 220 | 112,459 | 0 | | | 112,679 | |
| 39083SNDRSHIGHW | 2013 | 270 | 126,513 | 0 | | | 126,783 | |
| 39083SNDRSHIGHW | 2014 | 240 | 115,300 | 0 | | | 115,540 | |

## TRI Total Releases and Transfers in Pounds by Chemical and Year

| Chemical Name | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| AMMONIA | | | | | | | | | |
| CHLORINE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HYDROGEN SULFIDE | | | | | | | 220 | 270 | 240 |
| NITRATE COMPOUNDS | 149,900 | 168,350 | 310,380 | 294,890 | 173,200 | 132,800 | 112,459 | 126,513 | 115,300 |

# Demographic Profile

## Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

| | | | | | |
|---|---|---|---|---|---|
| Radius of Area: | 3 | Land Area: | 100% | Households in Area: | 2,374 |
| Center latitude: | 31.875006 | Water Area: | 0% | Housing Units in Area: | 2,635 |
| Center Longitude: | -90.38019 | Population Density: | 241/sq.mi. | Households on Public Assistance: | 27 |
| Total Persons: | 6,705 | Percent Minority: | 81% | Persons Below Poverty Level: | 3,494 |

| Race Breakdown | Persons (%) | Age Breakdown | Persons (%) |
|---|---|---|---|
| White: | 1,314 (19.6%) | Child 5 years and younger: | 605 (9.02%) |
| African-American: | 5,025 (74.94%) | Minors 17 years and younger: | 1,875 (27.96%) |
| Hispanic-Origin: | 339 (5.06%) | Adults 18 years and older: | 4,830 (72.04%) |
| Asian/Pacific Islander: | 37 (.55%) | Seniors 65 years and older: | 846 (12.62%) |
| American Indian: | 16 (.24%) | | |
| Other/Multiracial: | 313 (4.67%) | | |

| Education Level (Persons 25 & older) | Persons (%) | Income Breakdown | Households (%) |
|---|---|---|---|
| Less than 9th Grade: | 460 (11.07%) | Less than $15,000: | 685 (28.95%) |
| 9th through 12th Grade: | 835 (20.1%) | $15,000 - $25,000: | 378 (15.98%) |
| High School Diploma: | 1,299 (31.26%) | $25,000 - $50,000: | 646 (27.3%) |
| Some College/2-yr: | 1,068 (25.7%) | $50,000 - $75,000: | 296 (12.51%) |
| B.S./B.A. or More: | 493 (11.87%) | Greater than $75,000: | 361 (15.26%) |

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# Detailed Facility Report

## Facility Summary

### SANDERSON FARMS INC
### E SIDE OF AVIATION PKWY, WACO, TX 00000

**Facility Information (FRS)**

FRS ID: 110024412535
EPA Region: 06
Latitude:
Longitude:
Locational Data Source:
Industry: Poultry Slaughtering And Processing
Indian Country: N

**Regulatory Interests**

Clean Air Act: No Information
Clean Water Act: Minor, Permit Admin Continued (TX0128511)
Resource Conservation and Recovery Act: No Information
Safe Drinking Water Act: No Information

**Also Reports**

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): No Information

## Enforcement and Compliance Summary

| Statute | Insp (5 Years) | Date of Last Inspection | Current Compliance Status | Qtrs in NC (of 12) | Qtrs in Significant Violation | Informal Enforcement Actions (5 years) | Formal Enforcement Actions (5 years) | Penalties from Formal Enforcement Actions (5 years) | EPA Cases (5 years) | Penalties from EPA Cases (5 years) |
|---|---|---|---|---|---|---|---|---|---|---|
| CWA | 1 | 04/16/2013 | **No Violation** | 8 | 0 | | | | | |

Related Reports: CWA Effluent Charts CWA Pollutant Loading Report

# Facility/System Characteristics

## Facility/System Characteristics

| System | Statute | Identifier | Universe | Status | Areas | Permit Expiration Date | Indian Country | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FRS | | 110024412535 | | | | | N | | |
| ICP | CWA | TX0128511 | Minor: NPDES Individual Permit | Admin Continued | | 12/01/2008 | N | | |

## Facility Address

| System | Statute | Identifier | Facility Name | Facility Address |
|---|---|---|---|---|
| FRS | | 110024412535 | SANDERSON FARMS INC | E SIDE OF AVIATION PKWY, WACO, TX 00000 |
| ICP | CWA | TX0128511 | SANDERSON FARMS INC | E SIDE OF AVIATION PKWY, WACO, TX 00000 |

## Facility SIC Codes

| System | Identifier | SIC Code | SIC Desc |
|---|---|---|---|
| ICP | TX0128511 | 2015 | Poultry Slaughtering And Processing |

## Facility NAICS Codes

| System | Identifier | NAICS Code | NAICS Desc |
|---|---|---|---|
| No data records returned | | | |

## Facility Tribe Information

| Tribal Name | EPA Tribal ID | Distance to Tribe (miles) |
|---|---|---|
| No data records returned | | |

# Enforcement and Compliance

## Compliance Monitoring History (5 years)

| Statute | Source ID | System | Inspection Type | Lead Agency | Date | Finding |
|---|---|---|---|---|---|---|
| CWA | TX0128511 | ICP | Sampling | State | 04/16/2013 | |

Entries in italics are not considered inspections in official counts.

## Compliance Summary Data

| Statute | Source ID | Current SNC/HPV | Description | Current As Of | Qtrs in NC (of 12) |
|---|---|---|---|---|---|
| CWA | TX0128511 | | | 06/30/2015 | 8 |

## Three Year Compliance Status by Quarter

| Statute | Program/Pollutant/Violation Type | | | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CWA (Source ID: TX0128511) | | | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | | | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | In Viol | No Viol | No Viol | No Viol | No Viol | Und |
| | SNC/RNC History | | | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | N (RptViol) | R (Resolvd) | | | | |
| | Pollutant | Discharge Point | Frequency | | | | | | | | | | | | | |
| CWA | Coliform, fecal general | 001 | NMth | 100% | 400% | 210% | 14% | | | | | | | | | |

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

## Informal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|

No data records returned

## Formal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date | Penalty | Penalty Description |
|---|---|---|---|---|---|---|

No data records returned

## ICIS Case History (5 years)

| Primary Law/Section | Case No. | Case Type | Lead Agency | Case Name | Issued/Filed Date | Settlement Date | Federal Penalty | State/Local Penalty | SEP Cost | Comp Action Cost |
|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

# Environmental Conditions

## Water Quality

| Permit ID | Combined Sewer System? | Number of CSO Outfalls | Watershed (HUC 8) | Watershed Name (HUC 8) | Watershed (HUC 12) | Watershed Name (HUC 12) | Receiving Waters | Impaired Waters | Impaired Class | Causes of Impairment(s) by Group(s) | Watershed with ESA-listed Aquatic Species? |
|---|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

## Waterbody Designated Uses

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|

No data records returned

### Air Quality

| Non-Attainment Area? | Pollutant(s) |
|---|---|
| No | Ozone |
| No | Lead |
| No | Particulate Matter |

## Pollutants

### TRI History of Reported Chemicals Released in Pounds per Year at Site ⓘ

| TRI Facility ID | Year | Total Air Emissions | Surface Water Discharges | Off-Site Transfers to POTWs | Underground Injections | Releases to Land | Total On-site Releases | Total Off-site Releases |
|---|---|---|---|---|---|---|---|---|

No data records returned

### TRI Total Releases and Transfers in Pounds by Chemical and Year

| Chemical Name |
|---|

No data records returned

## Demographic Profile

### Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

No demographic information provided for this facility.

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# Detailed Facility Report

## Facility Summary

### SANDERSON FARMS
### 13111 HWY 190 W, HAMMOND, LA 70401

**Facility Information (FRS)**

FRS ID: 110008380000
EPA Region: 06
Latitude: 30.504467
Longitude: -90.514885
Locational Data Source: FRS
Industry: Food Manufacturing
Indian Country: N

**Regulatory Interests**

Clean Air Act: (100000105263), Operating Minor (LA0000002210500013)
Clean Water Act: Minor, Permit Terminated (LAR05M009), Minor, Permit Expired (LAR05A011), Minor, Permit Admin Continued (LA0007102)
Resource Conservation and Recovery Act: Active (H ) CESQG (LAD020857124), Active (H ) CESQG (LAD009808601)
Safe Drinking Water Act: No Information

**Also Reports**

Air Emissions Inventory (EIS): 9589711
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 70404SNDRSHWY19

## Enforcement and Compliance Summary

| Statute | Insp (5 Years) | Date of Last Inspection | Current Compliance Status | Qtrs in NC (of 12) | Qtrs in Significant Violation | Informal Enforcement Actions (5 years) | Formal Enforcement Actions (5 years) | Penalties from Formal Enforcement Actions (5 years) | EPA Cases (5 years) | Penalties from EPA Cases (5 years) |
|---|---|---|---|---|---|---|---|---|---|---|
| CAA | 1 | 06/21/2006 | **No Violation** | 0 | 0 | | | | 1 | $1,500 |
| CWA | 1 | 04/20/2011 | **Noncompliance** | 5 | 0 | | | | | |
| RCRA | | | **No Violation** | 0 | 0 | | | | | |

Related Reports: CWA Effluent Charts CWA Pollutant Loading Report Air Pollutant Report Enforcement Case Report

# Facility/System Characteristics

## Facility/System Characteristics

| System | Statute | Identifier | Universe | Status | Areas | Permit Expiration Date | Indian Country | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FRS | | 110008380000 | | | | | N | 30.504467 | -90.514885 |
| RMP | CAA | 100000105263 | | ACTIVE | | | | | |
| AIR | CAA | LA0000002210500013 | Minor Emissions | Operating | CAASIP | | N | | |
| EIS | CAA | 9589711 | | OPERATING | | | N | 30.50694 | -90.5075 |
| ICP | CWA | LAR05M009 | Minor: General Permit Covered Facility | Terminated | Storm Water Industrial | 04/30/2011 | N | 30.508 | -90.506528 |
| ICP | CWA | LAR05A011 | Minor: General Permit Covered Facility | Expired | Storm Water Industrial | 04/30/2011 | N | 30.508 | -90.506528 |
| ICP | CWA | LA0007102 | Minor: NPDES Individual Permit | Admin Continued | | 06/30/2015 | N | 30.505833 | -90.508056 |
| TRI | EP313 | 70404SNDRSHWY19 | | | | | | 30.504467 | -90.514885 |
| RCR | RCRA | LAD020857124 | CESQG | Active (H ) | | | N | | |
| RCR | RCRA | LAD009808601 | CESQG | Active (H ) | | | N | | |

## Facility Address

| System | Statute | Identifier | Facility Name | Facility Address |
|---|---|---|---|---|
| FRS | | 110008380000 | SANDERSON FARMS | 13111 HWY 190 W, HAMMOND, LA 70401 |
| RMP | CAA | 100000105263 | SANDERSON FARMS, INC. | HWY 190 WEST, HAMMOND, LA 70401 |
| AIR | CAA | LA0000002210500013 | SANDERSON FARMS INC - HAMMOND PROCESSING | 13111 HWY 190 W (NORTH OF RAIL, HAMMOND, LA 70401 |
| EIS | CAA | 9589711 | SANDERSON FARMS INC. | HWY 190 W, HAMMOND, LA 70401 |
| ICP | CWA | LAR05M009 | SANDERSON FARMS INC | HAMMOND PROCESSING PLANT, HAMMOND, LA 70401 |
| ICP | CWA | LAR05A011 | SANDERSON FARMS INC | HAMMOND PROCESSING PLANT, HAMMOND, LA 70401 |
| ICP | CWA | LA0007102 | SANDERSON FARMS, INC.- HAMMOND PROCESSING | 13111 HWY. 190 WEST, HAMMOND, LA 70404 |
| TRI | EP313 | 70404SNDRSHWY19 | SANDERSON FARMS INC | HWY 190 W, HAMMOND, LA 70401 |
| RCR | RCRA | LAD020857124 | SANDERSON FARMS INC | 13111 HWY 190 W N SIDE OF RR, HAMMOND, LA 70401 |
| RCR | RCRA | LAD009808601 | SANDERSON FARMS INC | 13111 HWY 190 W S SIDE OF RR, HAMMOND, LA 70401 |

## Facility SIC Codes

| System | Identifier | SIC Code | SIC Desc |
|---|---|---|---|
| TRI | 70404SNDRSHWY19 | 2015 | Poultry Slaughtering And Processing |
| AIR | LA0000002210500013 | 2015 | Poultry Slaughtering And Processing |
| ICP | LA0007102 | 2015 | Poultry Slaughtering And Processing |

## Facility NAICS Codes

| System | Identifier | NAICS Code | NAICS Desc |
|---|---|---|---|
| RMP | 100000105263 | 311615 | Poultry Processing |
| TRI | 70404SNDRSHWY19 | 311615 | Poultry Processing |

| System | Identifier | NAICS Code | NAICS Desc |
|---|---|---|---|
| EIS | 9589711 | 311999 | All Other Miscellaneous Food Manufacturing |
| AIR | LA0000002210500013 | 311615 | Poultry Processing |
| RCR | LAD009808601 | 311119 | Other Animal Food Manufacturing |
| RCR | LAD020857124 | 311615 | Poultry Processing |

## Facility Tribe Information

| Tribal Name | EPA Tribal ID | Distance to Tribe (miles) |
|---|---|---|

No data records returned

# Enforcement and Compliance

## Compliance Monitoring History (5 years)

| Statute | Source ID | System | Inspection Type | Lead Agency | Date | Finding |
|---|---|---|---|---|---|---|
| CAA / §112[R][7] | 3000078585 | ICIS | Evaluation | EPA | 09/20/2012 | |
| CWA | LA0007102 | ICP | Evaluation | State | 04/20/2011 | |

Entries in italics are not considered inspections in official counts.

## Compliance Summary Data

| Statute | Source ID | Current SNC/HPV | Description | Current As Of | Qtrs in NC (of 12) |
|---|---|---|---|---|---|
| CAA | LA0000002210500013 | No | | 09/26/2015 | 0 |
| CWA | LAR05M009 | | | 06/30/2015 | 0 |
| CWA | LAR05A011 | | | 06/30/2015 | 0 |
| CWA | LA0007102 | | | 06/30/2015 | 4 |
| RCRA | LAD020857124 | No | | 09/26/2015 | 0 |
| RCRA | LAD009808601 | No | | 09/26/2015 | 0 |

## Three Year Compliance Status by Quarter

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAA (Source ID: LA0000002210500013)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol |
| | HPV History | | | | | | | | | | | | |
| | Violation Type / Programs / Pollutants | | | | | | | | | | | | |

Historic Violations

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CWA (Source ID: LAR05M009)** | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | Und |
| | SNC/RNC History | | | | | | | | | | | | | |
| **CWA (Source ID: LAR05A011)** | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | Und |
| | SNC/RNC History | | | | | | | | | | | | | |
| **CWA (Source ID: LA0007102)** | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | In Viol | In Viol | No Viol | No Viol | No Viol | No Viol | In Viol | No Viol | No Viol | In Viol | Und |

| Statute | Program/Pollutant/Violation Type | | | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SNC/RNC History | | | | | V (NonRNCV) | V (NonRNCV) | | | | | V (NonRNCV) | | | V (NonRNCV) | |
| | Pollutant | Discharge Point | Frequency | | | | | | | | | | | | | |
| CWA | Coliform, fecal general | 001 | NMth | | | | 350% | | | | | 5% | | | | |
| CWA | Solids, total suspended | 003 | Mthly | | | 120% | | | | | | | | | | |
| CWA | Solids, total suspended | 003 | NMth | | | 47% | | | | | | | | | | |

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **RCRA (Source ID: LAD009808601)** | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| RCRA | Facility-Level Status | | | | | | | | | | | | |
| | **RCRA (Source ID: LAD020857124)** | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| RCRA | Facility-Level Status | | | | | | | | | | | | |

## Informal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|

No data records returned

## Formal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date | Penalty | Penalty Description |
|---|---|---|---|---|---|---|

No data records returned

## ICIS Case History (5 years)

| Primary Law/Section | Case No. | Case Type | Lead Agency | Case Name | Issued/Filed Date | Settlement Date | Federal Penalty | State/Local Penalty | SEP Cost | Comp Action Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| CAA / §112[R][7] | 06-2013-3508 | Administrative - Formal | EPA | Sanderson Farms, Inc. | 01/15/2013 | 01/15/2013 | $1,500 | $0 | $0 | $0 |

# Environmental Conditions

## Water Quality

| Permit ID | Combined Sewer System? | Number of CSO Outfalls | Watershed (HUC 8) | Watershed Name (HUC 8) | Watershed (HUC 12) | Watershed Name (HUC 12) | Receiving Waters | Impaired Waters | Impaired Class | Causes of Impairment(s) by Group(s) | Watershed with ESA-listed Aquatic Species? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LAR05A011 | | | 08070203 | TICKFAW | 080702030304 | Yellow Water River | Yellow Water River | No | | | Yes |
| LAR05M009 | | | 08070203 | TICKFAW | 080702030304 | Yellow Water River | Yellow Water River | No | | | Yes |

## Waterbody Designated Uses

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|
| 08070203000027 | Yellow Water River | No | No | No | No | No | No |

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|
| 08070203000027 | Yellow Water River | No | No | No | No | No | No |

## Air Quality

| Non-Attainment Area? | Pollutant(s) |
|---|---|
| No | Ozone |
| No | Lead |
| No | Particulate Matter |

# Pollutants

## TRI History of Reported Chemicals Released in Pounds per Year at Site ⓘ

TRI Pollution Prevention Report

| TRI Facility ID | Year | Total Air Emissions | Surface Water Discharges | Off-Site Transfers to POTWs | Underground Injections | Releases to Land | Total On-site Releases | Total Off-site Releases |
|---|---|---|---|---|---|---|---|---|
| 70404SNDRSHWY19 | 2006 | 11,060 | 29,650 | 0 | | | 40,710 | |
| 70404SNDRSHWY19 | 2007 | 12,360 | 17,280 | 0 | | | 29,640 | |
| 70404SNDRSHWY19 | 2008 | 10,340 | 39,690 | 0 | | | 50,030 | |
| 70404SNDRSHWY19 | 2009 | | 39,030 | 0 | | | 39,030 | |
| 70404SNDRSHWY19 | 2010 | | 43,000 | 0 | | | 43,000 | |
| 70404SNDRSHWY19 | 2011 | | 39,000 | 0 | | | 39,000 | |
| 70404SNDRSHWY19 | 2012 | 620 | 61,000 | 0 | | | 61,620 | |
| 70404SNDRSHWY19 | 2013 | 460 | 143,100 | 0 | | | 143,560 | |
| 70404SNDRSHWY19 | 2014 | 15,771 | 127,620 | 0 | | | 143,391 | |

## TRI Total Releases and Transfers in Pounds by Chemical and Year

| Chemical Name | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| AMMONIA | 11,360 | 12,540 | 10,480 | | | | | | 15,170 |
| HYDROGEN SULFIDE | | | | | | | 620 | 460 | 821 |
| NITRATE COMPOUNDS | 29,350 | 17,100 | 39,550 | 39,030 | 43,000 | 39,000 | 61,000 | 143,100 | 127,400 |
| PERACETIC ACID | | | | | | | | 0 | 0 |

# Demographic Profile

## Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

| | | | | | |
|---|---|---|---|---|---|
| Radius of Area: | 3 | Land Area: | 99% | Households in Area: | 9,839 |
| Center latitude: | 30.506944 | Water Area: | 1% | Housing Units in Area: | 10,964 |
| Center Longitude: | -90.5075 | Population Density: | 944/sq.mi. | Households on Public Assistance: | 193 |
| Total Persons: | 26,433 | Percent Minority: | 49% | Persons Below Poverty Level: | 11,518 |

| Race Breakdown | Persons (%) | Age Breakdown | Persons (%) |
|---|---|---|---|
| White: | 14,197 (53.71%) | Child 5 years and younger: | 1,928 (7.29%) |
| African-American: | 11,091 (41.96%) | Minors 17 years and younger: | 5,898 (22.31%) |

| Race Breakdown | Persons (%) | Age Breakdown | Persons (%) |
|---|---|---|---|
| Hispanic-Origin: | 1,142 (4.32%) | Adults 18 years and older: | 20,535 (77.69%) |
| Asian/Pacific Islander: | 327 (1.24%) | Seniors 65 years and older: | 2,482 (9.39%) |
| American Indian: | 75 (.28%) | | |
| Other/Multiracial: | 744 (2.81%) | | |

| Education Level (Persons 25 & older) | Persons (%) | Income Breakdown | Households (%) |
|---|---|---|---|
| Less than 9th Grade: | 1,294 (8.95%) | Less than $15,000: | 2,205 (23.28%) |
| 9th through 12th Grade: | 2,321 (16.06%) | $15,000 - $25,000: | 1,718 (18.14%) |
| High School Diploma: | 3,874 (26.81%) | $25,000 - $50,000: | 2,347 (24.78%) |
| Some College/2-yr: | 3,381 (23.39%) | $50,000 - $75,000: | 1,423 (15.02%) |
| B.S./B.A. or More: | 3,582 (24.79%) | Greater than $75,000: | 1,779 (18.78%) |

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# Detailed Facility Report

## Facility Summary

**SANDERSON FARMS, INC.**
**28163 HWY 28 EAST, HAZLEHURST, MS 39083** ⓘ

### Facility Information (FRS)

FRS ID: 110055519979
EPA Region: 04
Latitude: 31.876111
Longitude: -90.380556
Locational Data Source: RMP
Industry: Food Manufacturing
Indian Country: N

### Regulatory Interests

Clean Air Act: Operating Minor (MS0000002802900023), (100000109553)
Clean Water Act: Minor, Permit Effective (MS0044725)
Resource Conservation and Recovery Act: Inactive ( ) Other (MSD981759780)
Safe Drinking Water Act: No Information

### Also Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 39083SNDRSHIGHW

## Enforcement and Compliance Summary

| Statute | Insp (5 Years) | Date of Last Inspection | Current Compliance Status | Qtrs in NC (of 12) | Qtrs in Significant Violation | Informal Enforcement Actions (5 years) | Formal Enforcement Actions (5 years) | Penalties from Formal Enforcement Actions (5 years) | EPA Cases (5 years) | Penalties from EPA Cases (5 years) |
|---|---|---|---|---|---|---|---|---|---|---|
| CAA | 1 | 02/03/2011 | **No Violation** | 0 | 0 | | | | | |
| CWA | 1 | 12/20/2010 | **Noncompliance** | 4 | 0 | 6 | | | | |
| RCRA | | | **No Violation** | 0 | 0 | | | | | |

Related Reports: E CWA Effluent Charts L CWA Pollutant Loading Report A Air Pollutant Report Enforcement Case Report

# Facility/System Characteristics

## Facility/System Characteristics

| System | Statute | Identifier | Universe | Status | Areas | Permit Expiration Date | Indian Country | Latitude | Longitude |
|---|---|---|---|---|---|---|---|---|---|
| FRS | | 110055519979 | | | | | N | 31.876111 | -90.380556 |
| AIR | CAA | MS0000002802900023 | Minor Emissions | Operating | CAANSPS, CAASIP | | N | | |
| RMP | CAA | 100000109553 | | ACTIVE | | | | | |
| ICP | CWA | MS0044725 | Minor: NPDES Individual Permit | Effective | | 07/31/2019 | N | 31.875583 | -90.379056 |
| TRI | EP313 | 39083SNDRSHIGHW | | | | | | 31.875583 | -90.379056 |
| RCR | RCRA | MSD981759780 | Other | Inactive ( ) | | | N | | |

## Facility Address

| System | Statute | Identifier | Facility Name | Facility Address |
|---|---|---|---|---|
| FRS | | 110055519979 | SANDERSON FARMS, INC. | 28163 HWY 28 EAST, HAZLEHURST, MS 39083 |
| AIR | CAA | MS0000002802900023 | SANDERSON FARMS, HAZLEHURST PROCESSING | 28163 HIGHWAY 28 EAST, HAZLEHURST, MS 39083 |
| RMP | CAA | 100000109553 | SANDERSON FARMS, INC. | 333 HIGHWAY 28 EAST, HAZLEHURST, MS 39083 |
| ICP | CWA | MS0044725 | SANDERSON FARMS INC | 28163 HIGHWAY 28 EAST, HAZELHURST, MS 39083 |
| TRI | EP313 | 39083SNDRSHIGHW | SANDERSON FARMS INC | 28163 HWY 28E, HAZLEHURST, MS 39083 |
| RCR | RCRA | MSD981759780 | SANDERSON FARMS, INC. | HIGHWAY 28 BY-PASS, HAZLEHURST, MS 39083 |

## Facility SIC Codes

| System | Identifier | SIC Code | SIC Desc |
|---|---|---|---|
| TRI | 39083SNDRSHIGHW | 2015 | Poultry Slaughtering And Processing |
| AIR | MS0000002802900023 | 2015 | Poultry Slaughtering And Processing |
| ICP | MS0044725 | 2015 | Poultry Slaughtering And Processing |

## Facility NAICS Codes

| System | Identifier | NAICS Code | NAICS Desc |
|---|---|---|---|
| RMP | 100000109553 | 311615 | Poultry Processing |
| TRI | 39083SNDRSHIGHW | 311615 | Poultry Processing |
| AIR | MS0000002802900023 | 311615 | Poultry Processing |
| ICP | MS0044725 | 311615 | Poultry Processing |

## Facility Tribe Information

| Tribal Name | EPA Tribal ID | Distance to Tribe (miles) |
|---|---|---|

No data records returned

# Enforcement and Compliance

## Compliance Monitoring History (5 years)

| Statute | Source ID | System | Inspection Type | Lead Agency | Date | Finding |
|---|---|---|---|---|---|---|
| CWA | MS0044725 | ICP | Evaluation | State | 12/20/2010 | |
| CAA | MS0000002802900023 | AIR | TV ACC Receipt/Review | State | 02/05/2013 | |
| CAA | MS0000002802900023 | AIR | FCE On-Site | State | 02/03/2011 | |

Entries in italics are not considered inspections in official counts.

## Compliance Summary Data

| Statute | Source ID | Current SNC/HPV | Description | Current As Of | Qtrs in NC (of 12) |
|---|---|---|---|---|---|
| CAA | MS0000002802900023 | No | | 09/26/2015 | 0 |
| CWA | MS0044725 | | | 06/30/2015 | 3 |
| RCRA | MSD981759780 | No | | 09/26/2015 | 0 |

## Three Year Compliance Status by Quarter

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CAA (Source ID: MS0000002802900023)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol |
| | HPV History | | | | | | | | | | | | |

| | Violation Type | Programs | Pollutants |
|---|---|---|---|

Historic Violations

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 | QTR 13* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CWA (Source ID: MS0044725)** | | 07/01-09/30 2012 | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| | Facility-Level Status | No Viol | In Viol | No Viol | In Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | No Viol | In Viol | Und |
| | SNC/RNC History | | V (NonRNCV) | | V (NonRNCV) | | | | | | | | V (NonRNCV) | |

| | Pollutant | Discharge Point | Frequency | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CWA | Chlorine, total residual | 001 | NMth | | | 163% | | | | | | | | |
| CWA | Coliform, fecal general | 001 | NMth | | 16% | | 92% | | | | | | | |
| CWA | Nitrogen, ammonia total [as N] | 001 | NMth | | | | | | | | | | 84% | |

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

| Statute | Program/Pollutant/Violation Type | QTR 1 | QTR 2 | QTR 3 | QTR 4 | QTR 5 | QTR 6 | QTR 7 | QTR 8 | QTR 9 | QTR 10 | QTR 11 | QTR 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCRA (Source ID: MSD981759780)** | | 10/01-12/31 2012 | 01/01-03/31 2013 | 04/01-06/30 2013 | 07/01-09/30 2013 | 10/01-12/31 2013 | 01/01-03/31 2014 | 04/01-06/30 2014 | 07/01-09/30 2014 | 10/01-12/31 2014 | 01/01-03/31 2015 | 04/01-06/30 2015 | 07/01-09/30 2015 |
| RCRA | Facility-Level Status | | | | | | | | | | | | |

## Informal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 08/07/2012 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 02/25/2013 |

| Statute | Source ID | Type of Action | Lead Agency | Date |
|---|---|---|---|---|
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 01/25/2011 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 08/28/2015 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 09/23/2011 |
| CWA | MS0044725 | Letter of Violation/ Warning Letter | State | 08/18/2011 |

## Formal Enforcement Actions (5 Years)

| Statute | Source ID | Type of Action | Lead Agency | Date | Penalty | Penalty Description |
|---|---|---|---|---|---|---|

No data records returned

## ICIS Case History (5 years)

| Primary Law/Section | Case No. | Case Type | Lead Agency | Case Name | Issued/Filed Date | Settlement Date | Federal Penalty | State/Local Penalty | SEP Cost | Comp Action Cost |
|---|---|---|---|---|---|---|---|---|---|---|
| CERCLA / §103A | 04-2012-2072 | Administrative - Formal | EPA | SANDERSON FARMS, INC. | 07/10/2012 | 07/10/2012 | $1,430 | $0 | $0 | $100 |

# Environmental Conditions

## Water Quality

| Permit ID | Combined Sewer System? | Number of CSO Outfalls | Watershed (HUC 8) | Watershed Name (HUC 8) | Watershed (HUC 12) | Watershed Name (HUC 12) | Receiving Waters | Impaired Waters | Impaired Class | Causes of Impairment(s) by Group(s) | Watershed with ESA -listed Aquatic Species? |
|---|---|---|---|---|---|---|---|---|---|---|---|

No data records returned

## Waterbody Designated Uses

| REACH Code | Waterbody Name | Exceptional Use | Recreational Use | Aquatic Life Use | Shellfish Use | Beach Closure Within Last Year | Beach Closure Within Last Two Years |
|---|---|---|---|---|---|---|---|

No data records returned

## Air Quality

| Non-Attainment Area? | Pollutant(s) |
|---|---|
| No | Ozone |
| No | Lead |
| No | Particulate Matter |

# Pollutants

## TRI History of Reported Chemicals Released in Pounds per Year at Site

TRI Pollution Prevention Report

| TRI Facility ID | Year | Total Air Emissions | Surface Water Discharges | Off-Site Transfers to POTWs | Underground Injections | Releases to Land | Total On-site Releases | Total Off-site Releases |
|---|---|---|---|---|---|---|---|---|
| 39083SNDRSHIGHW | 2006 | | 149,900 | 0 | | | 149,900 | |
| 39083SNDRSHIGHW | 2007 | | 168,350 | 0 | | | 168,350 | |
| 39083SNDRSHIGHW | 2008 | | 310,380 | 0 | | | 310,380 | |
| 39083SNDRSHIGHW | 2009 | | 294,890 | 0 | | | 294,890 | |
| 39083SNDRSHIGHW | 2010 | | 173,200 | 0 | | | 173,200 | |
| 39083SNDRSHIGHW | 2011 | | 132,800 | 0 | | | 132,800 | |
| 39083SNDRSHIGHW | 2012 | 220 | 112,459 | 0 | | | 112,679 | |
| 39083SNDRSHIGHW | 2013 | 270 | 126,513 | 0 | | | 126,783 | |
| 39083SNDRSHIGHW | 2014 | 240 | 115,300 | 0 | | | 115,540 | |

## TRI Total Releases and Transfers in Pounds by Chemical and Year

| Chemical Name | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|
| AMMONIA | | | | | | | | | |
| CHLORINE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HYDROGEN SULFIDE | | | | | | | 220 | 270 | 240 |
| NITRATE COMPOUNDS | 149,900 | 168,350 | 310,380 | 294,890 | 173,200 | 132,800 | 112,459 | 126,513 | 115,300 |

# Demographic Profile

## Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

| | | | | | |
|---|---|---|---|---|---|
| Radius of Area: | 3 | Land Area: | 100% | Households in Area: | 2,374 |
| Center latitude: | 31.875006 | Water Area: | 0% | Housing Units in Area: | 2,635 |
| Center Longitude: | -90.38019 | Population Density: | 241/sq.mi. | Households on Public Assistance: | 27 |
| Total Persons: | 6,705 | Percent Minority: | 81% | Persons Below Poverty Level: | 3,494 |

| Race Breakdown | Persons (%) | Age Breakdown | Persons (%) |
|---|---|---|---|
| White: | 1,314 (19.6%) | Child 5 years and younger: | 605 (9.02%) |
| African-American: | 5,025 (74.94%) | Minors 17 years and younger: | 1,875 (27.96%) |
| Hispanic-Origin: | 339 (5.06%) | Adults 18 years and older: | 4,830 (72.04%) |
| Asian/Pacific Islander: | 37 (.55%) | Seniors 65 years and older: | 846 (12.62%) |
| American Indian: | 16 (.24%) | | |
| Other/Multiracial: | 313 (4.67%) | | |

| Education Level (Persons 25 & older) | Persons (%) | Income Breakdown | Households (%) |
|---|---|---|---|
| Less than 9th Grade: | 460 (11.07%) | Less than $15,000: | 685 (28.95%) |
| 9th through 12th Grade: | 835 (20.1%) | $15,000 - $25,000: | 378 (15.98%) |
| High School Diploma: | 1,299 (31.26%) | $25,000 - $50,000: | 646 (27.3%) |
| Some College/2-yr: | 1,068 (25.7%) | $50,000 - $75,000: | 296 (12.51%) |
| B.S./B.A. or More: | 493 (11.87%) | Greater than $75,000: | 361 (15.26%) |

# EXHIBIT F

TETRA TECH

One Park Drive, Suite 200 • PO Box 14409
Research Triangle Park, NC 27709
Tel 919-485-8278 • Fax 919-485-8280

# MEMORANDUM

| | |
|---|---|
| **To:** | Blakely Hildebrand, Will Hendrick<br>Southern Environmental Law Center (SELC) |
| **Cc:** | |
| **From:** | Victor D'Amato, Trevor Clements |
| **Date:** | September 29, 2015 |
| **Subject:** | Review of non-discharge permit application and draft permit for Sanderson Farms, Inc. chicken processing facility in Robeson County, North Carolina |

## 1.0 INTRODUCTION

### 1.1 PROJECT BACKGROUND

Sanderson Farms, Inc. (SFI) submitted a permit application to the Division of Water Resources (DWR) Non-Discharge Permitting Unit for an industrial wastewater treatment and spray irrigation system to serve a new chicken processing facility proposed to be built at 2026 NC Highway 20 in St. Pauls, a community of just over 2,000 residents in Robeson County, North Carolina.

Figure 1 shows the general location of the site within the broader hydrologic setting of the area. The site is in the Gallberry Swamp (HUC 030402030605) and Lower Big Marsh Swamp (HUC 030402030604) subwatersheds within the Gallberry Swamp watershed (HUC 0304020306) in the Lumber River Basin (03040203 HUC). The area surface waters are generally classified by DWR as C-Sw waters. Class C waters are protected for uses such as secondary recreation, fishing, wildlife, fish consumption, aquatic life including propagation, survival and maintenance of biological integrity, and agriculture. Secondary recreation includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner. Sw stands for "Swamp Waters" which is a supplemental classification intended to recognize those waters which have low velocities and other natural characteristics which are different from adjacent streams.

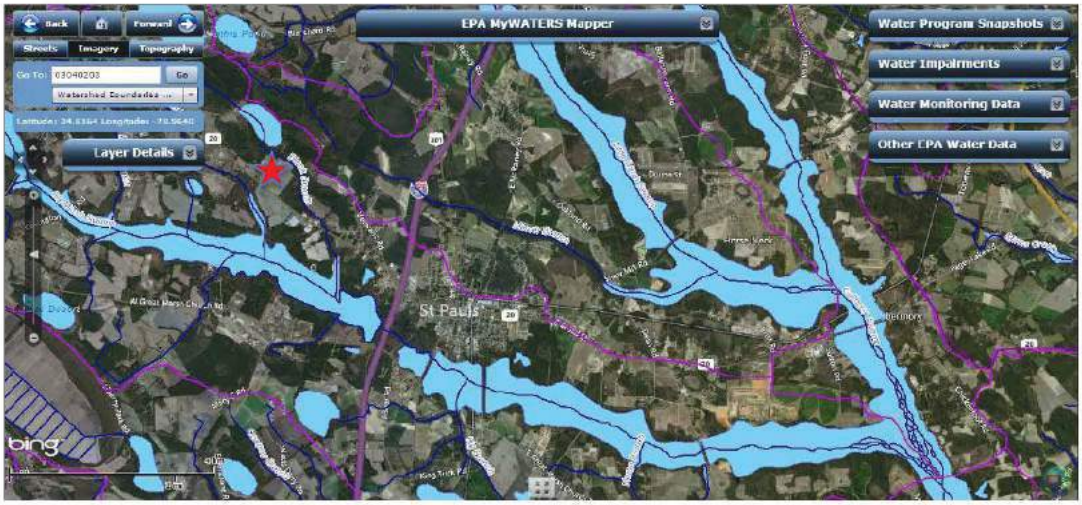


**Figure 1. Hydrologic setting (site location depicted by red star)**

## 1.2 SCOPE OF REVIEW

Tetra Tech was retained to conduct an analysis of the potential surface and groundwater impacts of the proposed project by reviewing the application for, and initial draft of, a non-discharge wastewater irrigation permit issued by DWR for the facility.

This memo provides a summary of Tetra Tech's technical findings and, where applicable, identifies and recommends additional analyses that could be conducted to fill information gaps or answer other important questions for a more robust assessment of the draft permit.

Tetra Tech's review included the following main elements, which are organized accordingly in Section 3.0, Technical Discussion.

- Agronomy and Soil/Site Evaluation
- Groundwater Mounding and Quality
- Wastewater Management
- Secondary Impacts

# 2.0 PERMIT OVERVIEW

## 2.1 DESCRIPTION OF APPLICATION AND SUPPORTING DOCUMENTS

Tetra Tech's review was generally limited to information provided by SELC, which collected permit application documentation from DWR's Central Office files. Essentially five sets of materials were provided for Tetra Tech's review:

- SFI's original permit application and supporting documents (without engineering plan sheets)
- SFI's response to first DWR additional information request and supporting documents (without engineering plan sheets)

- SFI's supporting documents in response to second DWR additional information request
- Digital files and photographs of engineering plan sheets
- Draft permit and notice/fact sheet

A detailed list of the materials reviewed is provided in Appendix A.

## 2.2 DESCRIPTION OF PERMIT

SFI's original permit application request (Application No. WQ0037772) was received by DWR on May 6, 2015. The permit application was reviewed by both DWR Central and Fayetteville Regional Office Staff, with additional information requested on July 7, 2015 and August 10, 2015 (respective responses by SFI were received July 23, 2015 and August 21, 2015). A draft permit was approved by DWR and SFI on August 26, 2015.

The draft permit is for a 1.4 million gallon per day (MGD) wastewater treatment system consisting of a clay lined, synthetically covered anaerobic pond; an anoxic basin; an aeration basin; a de-aeration basin; a clarifier; a clay lined biosolids pond; an ultraviolet (UV) disinfection system; and a wet weather storage pond; as well as a spray irrigation system consisting of approximately 350 acres of spray irrigation fields.

# 3.0 TECHNICAL DISCUSSION

## 3.1 AGRONOMY AND SOIL/SITE EVALUATION

Relevant documents and technical reports from Sanderson Farm's application package, including the Agronomist Report, Water Balance, and Soil Report, were reviewed with the following goals:

1) To ascertain completeness and compliance with DWR rules, guidance documents, and application requirements.
2) To review the data analyses, assessments, and calculations for accuracy and completeness.
3) To insure that data measurement and data assessment models rely on proven and current methodologies.

The results of this review are separated into three distinct subsections below, addressing three major, related elements of the application.

### 3.1.1 Agronomist Report

The Agronomist Report addresses all key agronomic components and was developed using current standard and DWR-specified practices and methodologies. It covers planting, harvesting, and management recommendations.

The DWR Regional Office staff report raised the issue of the proposed plant available nitrogen (PAN) loading to some of the soils. The calculated PAN is based upon projected effluent concentrations of TKN, ammonia, and nitrate/nitrite (refer to Section 3.3, Wastewater Management for more information). The DWR staff report recommends PAN rates of 60-75 lb. N/acre-year whereas the Agronomist Report allows up to 150 lb. N/acre-year to forest. Additionally, the analysis does not address potential leaching of nitrate in winter months when plant uptake will be greatly reduced.

Nitrogen assimilation will be affected by tree harvest schedule and higher nitrogen loading rates can be agronomically justified in forest situations where high management and producing pulp versus structural lumber is the goal. Once the facility is functioning, PAN calculations using actual effluent data (it is likely that actual loadings will be lower than 150 lb/acre-year) can be used to accurately monitor N loading rates and loading rates can be adjusted as system operation continues.

### 3.1.2 Water Balance

The supporting hydraulic conductivity ($K_{sat}$) data in the Soil Report and Hydrogeologic Report was reviewed, as $K_{sat}$ is an important input to the water balance. The water balance is designed around the most hydraulically restrictive soil that is to be used for irrigation (in this case, the Norfolk soil series). This is a conservative design approach, and simplifies the water balance assessment. The geometric mean of the more conservative $K_{sat}$ readings is 0.62 inches/hour which is consistent with expected measurements for Norfolk soils. The consultant used a drainage factor of 0.02, which is also conservative, as DWR and USEPA often use a drainage factor of 0.04 to 0.10.

The Water Balance report is thorough and complete. It uses a greatly simplified calculation approach for a project of this size; however, since the entire system is designed around the most limiting site feature to be irrigated, the applicant has used a conservative design approach. Data analysis and interpretations are sound.

### 3.1.3 Soil Report

The Soil Report is thorough and complete. Field notes generally support the decisions used for project design in other documents including the water balance and agronomic report. Soil chemistry data show that the soils appear to have been historically managed with normal agronomic practices and have not been used for consistent waste application or poultry litter application. Agro Services International laboratory was used for analysis and the data were plotted in an easy-to-read bar graph format. The soils appear to have no expected fertility problems with regard to calcium/magnesium ratios, pH, or salts. No excess nutrients or metals were measured and are not expected.

The soil conductivity data (referenced in Section 3.1.2 above) is provided in the Soil Report. As a matter of terminology, each field sheet notes "start of saturation" and then the steady state readings immediately follow. We interpret this to imply that the time noted is actually start of readings versus start of saturation, as these soils typically take 20 to 60 or more minutes to saturate prior to reaching steady state. The data readings for most sites show steady state or near enough to steady state to accurately measure the conductivity. For some measurements, steady state was not achieved but this is typical in the very sandy Lakeland soils and the sandier variants of the Wagram soils. The higher outliers from the $K_{sat}$ data were removed prior to the calculation of the geometric mean. Overall, a conservative approach is used and the data support the water balance calculations and ultimate loading rate decisions.

The irrigation rate of 0.2 inches per hour is a conservative rate for the soils described and is based upon good judgment for this site. There are no measurements to support this decision, but experience shows that it is difficult to achieve steady-state and reliable measurements in very sandy soils such as these. The rate chosen is supported by irrigation design manuals and handbooks.

In their additional information request, DWR expresses concern with the phosphorus loading average of 244 lb/acre-year, which exceeds typical agronomic rates. Nutter & Associates (the consultant) provides supporting documentation justifying the potential for phosphorus sorption in the soil. Excess phosphorus

does not constitute an agronomic concern, but may pose water quality concerns. Phosphorus loading concerns may be addressed by limiting soil phosphorus loss via buffers and erosion control measures. Additionally, the phosphorus loss assessment tool is a good mechanism to assess potential P loss to surface waters.

### 3.1.4 Summary

The main components of the Agronomic Report, Soil Report, and Water Balance appear to have been completed using sound scientific practices. The reports are complete and meet DWR requirements for non-discharge application submittal.

Data collection appears thorough and generally supports the decisions used to aid in the system design, assuming that all data were collected in a representative and scientifically sound manner. Natural resource data such as soil chemistry, and $K_{sat}$ measurements can be highly variable, so the data were assumed representative of the site.

The proposed nutrient (nitrogen and phosphorus) loading rates are on the high end of what is agronomically supported. Additional analyses (e.g., phosphorus fate and transport modeling, seasonal nitrogen transport) and/or management practices are warranted to ensure that potential impacts to ground and surface waters are mitigated, particularly with regard to placing this in the context of full secondary and cumulative impacts (see Section 3.4).

Additionally, the entire evaluation and design proposal as related to soils and agronomics is based on a projected wastewater chemistry and flow rates which have now been adequately justified in the application. Since these flow and chemistry projections are fundamental to the performance of the soil and agronomic system, DWR should require additional justification prior to issuing a permit (see Section 3.3, Wastewater Management for more information).

## 3.2 GROUNDWATER MOUNDING AND QUALITY

### 3.2.1 Groundwater Mounding Analysis

The Groundwater Mounding Analysis prepared by Nutter & Associates (5/4/2015) may significantly underestimate the potential for water table mounding caused by wastewater irrigation at the site. This comment is based on the following factors.

a. The Hydrogeologic Report prepared by Nutter & Associates (5/4/2015) reports that "(s)urficial aquifer characteristics are highly variable, consistent with the physiographic region. Estimates of Sy range from 0.006 to 0.23. A representative Sy for the site is 0.1106. The transmissivity T ranges from 1.334 to 290.7 $ft^2$/day, per pump test and slug test estimates. A representative T for the site is considered to be 8.8 $ft^2$/day for a saturated thickness of nine feet." Thus, the mean horizontal hydraulic conductivity can be estimated as 8.8 $ft^2$/day divided by nine feet of saturated thickness, which equals 0.98 ft/day.

b. In Table 3 of the Groundwater Mounding Analysis, hydraulic conductivity values for the sandy clay loam to coarse sand textural classes apparently included in the applied model range from 10.00 to 23.56 cm/hr, which is equivalent to 7.9 to 18.6 ft/day. These hydraulic conductivity values used to calculate mounding are approximately an order of magnitude greater than the value of 0.98 ft/day reported in the Hydrogeologic Report referenced in item (a) above. The

magnitude of mounding is inversely proportional to hydraulic conductivity. Thus, if hydraulic conductivity is assumed to be 10 times higher than actual, the calculated mounding will be approximately 10 times less than actual. Note that mounding cannot exceed the height of the vadose zone (ground surface elevation minus water table elevation).

c. The porosity of sandy clay loam to coarse sand aquifer media identified in the Groundwater Mounding Analysis report ranges from 0.393 to 0.437. These values are much higher than the representative specific yield value of 0.11 reported in the Hydrogeologic Report. The magnitude of mounding (prior to attaining steady state conditions) is inversely proportional to specific yield. Thus, if porosity values were input to represent specific yield in the Groundwater Mounding Analysis (rather than field capacity or specific yield values), then the calculated mounding heights would have been underestimated (all other factors being equal).

d. Tetra Tech has not been provided with input or output (digital) data files associated with Nutter's modeling of water table mounding due to proposed wastewater irrigation at the SFI site. These files would help us understand precisely how the model was parameterized, what the model results show, and how sensitive the simulation results are to parameter estimates.

e. Based on the Water Balance Report prepared by Nutter & Associates (5/1/2015), the 80th percentile annual precipitation rate at the site is 54.25 inches, the calculated potential evapotranspiration rate is 34.54 inches per year, and the design irrigation rate is 54.39 inches per year over 349 acres. Given these assumptions, the recharge rate to the surficial aquifer can be calculated as 54.25 + 54.29 – 34.54 = 74.1 inches recharge per year. This equates to a recharge rate of 0.0169 feet per day.

f. Tetra Tech performed several calculations of groundwater mounding using a recharge rate of 0.0169 ft/day and both the USGS MODFLOW finite-difference model and the Hantush mounding equation (as implemented in Aqtesolv v.4.50.002). The simulations assume a rectangular recharge area (measuring 1,500 feet by 1,500 feet). Using MODFLOW, simulations incorporated constant heads at 9 feet above MSL at the perimeter of the 1,500 feet by 1,500 feet area. The Hantush calculations assume an infinite aquifer with no boundary conditions. Simulation parameters are shown in Appendix B along with contour plots of simulated steady-state mounds using MODFLOW, and simulation reports showing mound height as a function of time to 365 days using the Hantush equation. As shown, calculations made using estimates of hydraulic conductivity and specific yield that are reported by Nutter to be representative of the shallow, water-table aquifer at the site indicate a potential for significantly greater mounding than projected in the Groundwater Mounding Analysis report.

In addition to resolving discrepancies between the Groundwater Mounding Analysis and Hydrogeologic Reports, we recommend that the permit require that water table elevation mounding be carefully monitored to determine if the spray irrigation system performs as designed and in accordance with permit requirements. Automated water-level recording devices, such as Solinst Leveloggers, should be deployed to measure and record water table elevation at regular intervals (such as every 15 minutes) in all water table monitoring wells. The data loggers should be installed near bottom of each well screen interval. Groundwater depth below measuring point (top-of-casing) should be recorded upon datalogger insertion as should the difference in elevation between the measuring point and ground surface. Water level data should be downloaded in coordination with manual monitoring (in March, July, and November of each year) and data should be submitted in electronic format (Excel) with a depth-to-water below ground surface (y-axis) versus date/time (x-axis) chart for each monitoring well.

### 3.2.2 Groundwater Quality

Relatively little information was provided regarding nutrient fate and transport within the groundwater (and connected surface water) system. Given the potential for water table mounding, ground surface pooling, overland flow, and groundwater flow to manmade ditches as well as natural drains (swales) and streams, we recommend that fate and transport modeling be conducted and that the permit require a more detailed and intensive monitoring network be designed and implemented to determine the nature and extent of any system impacts on surface water drainage and surface water quality at and near the site prior to making any final permitting decision.

## 3.3 WASTEWATER MANAGEMENT

### 3.3.1 Scope of Review

This review addresses engineering issues related to the proposed wastewater management system. The proposed system consists of an anaerobic lagoon, activated sludge treatment (with anoxic treatment for denitrification), ultraviolet disinfection, a spray irrigation system for effluent dispersal, and associated pumping systems, tankage, valves and other appurtenances. Supporting technical information was reviewed in detail, while the plans and specifications for systems were generally only cursorily reviewed (for completeness and certain specific details).

### 3.3.2 Findings and Recommendations

The following items are fundamental to the design of the wastewater management system and should be addressed by SFI prior to DWR making any final permitting decision.

1. Design flow: the nominal design flow of 1.4 MGD is not adequately supported by the information provided with respect to the requirements of 15A NCAC 02T .0114(f). Specifically, we found no information addressing items (A) and (B) of this rule. The applicant should provide details on the flow monitoring system (including meter calibration, as required), details on the comparable facility (Kinston plant) and its processing and wastewater collection processes and, especially, number of birds processed daily. The flow per bird should be presented and used to calculate the design flow for the proposed St. Pauls facility which is proposed to process up to 1.25 million birds per week.
2. Wastewater characteristics: likewise, per (1) above, information to substantiate proposed/anticipated wastewater characteristics (used as basis for design) are lacking. Additionally, only a single table has been provided (Table 1 in "Wastewater Chemical Analysis" document), which is indicated to be based on the Kinston facility. Time series data should be provided to allow for an analysis of the typical variability in wastewater characteristics. Furthermore, the "influent" and "effluent" column headings in Table 1 are unclear. Presumably, "influent" refers to raw (or possibly screened) wastewater and "effluent" refers to final effluent (post-biological treatment and disinfection) to be land applied. This should be clarified and we recommend that an additional column be added so that the four columns be: Constituent, Raw Wastewater, Anaerobic Lagoon Effluent, and Final Effluent. The design bases for both the anaerobic lagoon and activated sludge system are currently unclear.

a. Chemical constituents: the applicant should provide a list of chemicals to be used at the site to help assess fate and transport through the pre-treatment and land application system.

b. Effluent phosphorus: the design phosphorus concentration of 20 mg/l appears to be less than that measured at the Kinston plant. The applicant's July 20, 2015 response to DWR's additional information request (item F.1) indicates that they plan to use the results of phosphorus monitoring to reduce phosphorus discharges in the future. The applicant should consider effluent phosphorus reductions now, particularly since recovering phosphorus as a resource is becoming more economically attractive. The DWR non-discharge permit should include mechanisms for requiring additional phosphorus removal in the future as suggested by the results of monitoring and technology availability.

3. Stormwater management: stormwater is proposed to be treated in the wastewater system. Complete design documents and supporting calculations should therefore be provided in support of the non-discharge permit application, particularly to ensure that hydraulic impacts on treatment performance are mitigated. We do not see where stormwater flow has been accounted for in the design flow calculation (reference item 1 above).

4. Anaerobic lagoon: the design hydraulic retention time for the anaerobic lagoon is low (7.95 days) relative to most standards. This is exacerbated by the proposal to use the anaerobic lagoon for both treatment and flow equalization. The organic loading rate to the anaerobic lagoon also appears to be high (>20,000 lb/acre-day). For comparison, Woodard (2001) suggests hydraulic retention times of 30-50 days and organic loading rates of 1,000 lb/acre-day.

5. Wastewater treatment plant: currently, the proposal calls for only a single wastewater treatment train, which is inconsistent with most engineering standards (and North Carolina regulations, at least for NPDES treatment works) particularly for a system of this size, which recommend or require a minimum of two trains. This is particularly critical because the applicant is seeking a power reliability variance for the wastewater treatment plant.

    a. Power reliability variance: DWR should report on whether the requested variance for the wastewater treatment plant has been granted. 15A NCAC 02T .0505 (l)(2)(C) does not appear to be met, as required to issue a variance. By most accepted engineering standards, an activated sludge plant cannot "tolerate septic wastewater due to prolonged detention".

6. Wastewater treatment system (overall): given that the system has a fairly high level of operational complexity (e.g., combined anaerobic lagoon/flow equalization, irrigation storage, activated sludge with anoxic zones, stormwater addition to wastewater flow), we believe that an Operation and Maintenance Plan, as required by 15A NCAC 02T .0507 be required to be submitted and approved ***prior to*** permitting.

7. Groundwater pollutant fate and transport modeling should be required for this system, given the high density of irrigation and relatively aggressive proposed agronomic rates, in compliance with 15A NCAC 02T .0505(c).

8. Residuals management: documentation on the fate of residuals from the wastewater treatment system (primarily the sludge storage/thickening basin) is lacking. The certification from Terra Renewal Services provides no indication of how much land application capacity will be available for residuals from the proposed SFI facility.

a. Sludge holding pond: The storage capacity (in terms of number of days of storage) appears to be somewhat overstated for this component, as it is not realistic to assume that 100 percent of the operating volume of the basin will be occupied by thickened sludge (need to account for some room for supernatant).

9. Draft permit: DWR's draft non-discharge permit shows no effluent limits (besides Flow) in Attachment A. The effluent limits should minimally be those specified in 15A NCAC 02T .0505(b). Additionally, Figure 1, referenced in the draft permit, should be provided in advance of its issuance. Figure 1 should show locations of all proposed upgradient (background) and downgradient monitoring wells. Monitoring wells should also be provided to determine whether there are any impacts from the treatment/storage lagoons given their installation with respect to the seasonally high water table.

10. Pending approvals/certifications need to be addressed. What is the status of the following?

    a. Dam safety exemption

    b. Erosion and Sedimentation Control Plan approval

    c. Section 401/404 Jurisdictional Determinations

    d. Stormwater management plan approval

    e. Natural Heritage Program approval/concurrence

## 3.4 SECONDARY AND CUMULATIVE IMPACTS

The land application permit does not address secondary and cumulative impacts, which are expected to be significant for the proposed SFI facility. The permit application does not describe the impacts from the new poultry operations that would be generated by construction and operation of the SFI poultry processing plant. However, a similar plant was proposed for Nash County NC and information is available that provides insight to the potential magnitude of impact. For that facility, SFI estimated that it would stimulate establishment of more than 500 new chicken houses that would supply chickens for slaughtering. On behalf of the City of Wilson, Tetra Tech evaluated the potential impacts of both the slaughtering facility's non-discharge system and the secondary impacts from activities stimulated by the proposed facility (Tetra Tech, 2011). We can draw from that analysis to highlight likely concerns regarding secondary impacts for the proposed SFI facility to be located in St Pauls, NC.

Information previously provided to Nash County by SFI estimates that a new processing facility is expected to result in 496 broiler new chicken houses, 48 new breeder chicken houses, and 24 new pullet chicken houses. SFI indicated that these chicken houses are expected to be located on farms within a 75 mile radius of the slaughter plant. According to a 2005 NC Cooperative Extension literature review, the poultry industry is faced with three major water quality and nonpoint source pollution issues: 1) processing plant waste (evaluated in previous sections of this memo); 2) mortality management; and 3) manure/litter management. The North Carolina Division of Water Quality (2010 Tar-Pamlico River Basin Plan NSW Strategy, Chapter 6) identified the lack of regulation and information and the concomitant uncertainty in the impacts of poultry operations as a key concern. Below we have highlighted main research findings from our previous research (Tetra Tech, 2011) regarding poultry farm manure management and corresponding potential risks to water quality.

### 3.4.1 Chicken Farm Facilities and Manure Management

In Eastern North Carolina, each poultry house produces about 5-7 flocks per year, depending on the size of the chickens being raised. Generally, after a cleanout, fresh bedding made of wood shavings is spread in the house. After each flock, a litter de-caker is used to remove the top two inches of bedding that becomes saturated with waste. In some cases, this top layer is replaced with more shavings. Some growers repeat this process for one to three years before doing a full cleanout (personal communication, Sanjay Shah, Associate Professor, NCSU Biological and Agricultural Engineering, 02/02/11).

After the cake is removed from the chicken house, it is generally stored and stockpiled on site. When weather permits and there is a prospect for plant growth, the litter is land applied (generally to cropland in the spring and fall and to pasture in the summer). This is considered as a way both to improve soil fertility and to maintain good vegetative cover on pasture land.

Based on two studies conducted by NCSU, chicken houses with large birds (i.e., 9 pounds each), on average produce approximately 230 tons of waste per year. This includes litter and cake. Houses with smaller birds generate approximately 65 tons of waste per year (personal communication, Sanjay Shah, Associate Professor, NCSU Biological and Agricultural Engineering, 02/02/11).

Animal operations including poultry farms are a significant source of nitrogen into the atmosphere. In their fact sheet on Air Quality and Livestock Operations, the U.S. Department of Agriculture Natural Resource Conservation Service (USDA NRCS, 2008) states that storage, handling, and the breakdown or decomposition of feed, bedding material, and manure (including land applied poultry litter) can produce ammonia nitrogen and nitrogen oxides ($NO_x$). These nitrogen particles in the atmosphere frequently deposit back down on the land and water as sources of pollution. Atmospheric deposition of nitrogen oxides ($NO_x$) and ammonia ($NH_3$) is a significant source of nitrogen input in North Carolina (for example, estimated as a source of more than 37 million lbs./yr. into the Neuse River Estuary, per Whitall et al., 2003). In North Carolina, animal agriculture is responsible for over 90 percent of all ammonia emissions; in turn, ammonia comprises more than 40 percent of the total estimated nitrogen emissions from all sources (Aneja et al., 1998).

Poultry litter application to land increases both soluble and particulate bound nutrients in soils. Soluble nutrients are carried through the soil profile and enter streams through overland flow and interflow during storms, and through groundwater interception during baseflow. Particulate bound nutrients are primarily transported to streams through overland flow during storm events. Litter application on no-till land allows for more washoff of litter directly into drainages and streams (Blankenship, 2004).

Disposing of poultry litter for fertilization presents a challenge for phosphorus management because the ratio of nitrogen to phosphorus in litter is lower than required by grasses. If poultry litter is the sole source of fertilization, meeting soil nitrogen requirements will result in an over application of phosphorus (Sharpley, 1998; Harmel, 2009). High runoff nitrogen and phosphorus can occur on well-managed fields (Harmel, 2009).

An NC Extension Service study (NCSU, 2005) found that nonpoint source pollution from animal waste runoff can reduce surface and groundwater quality by introducing excessive levels of nutrients such as nitrogen and phosphorus, organic matter, and pathogens into the environment. In 114 watersheds studied throughout the U.S., excessive levels of nitrogen and phosphorus were derived primarily from excessive or irresponsible manure applications. The NCSU research indicates that typical phosphorus applied with poultry waste (i.e., chicken litter is the source of fertilizer) is approximately 110 pounds of phosphorus per acre. This is roughly five times more than what a typical crop requires.

A U.S. Department of Agriculture report (Gollehon et al, 2001) reported excess nitrogen and phosphorus in many NC counties; that is, the amount of animal manure generated by the production farm exceeds the production farm's ability to assimilate the nutrients on site. These findings were also substantiated in follow-up research by North Carolina State University's Departments of Soil Science and Biological and Agricultural Engineering, and the North Carolina Agricultural Research Service (NCSU, 2005). The USDA report indicated that poultry farms accounted for 55 percent of the excess phosphorus and 66 percent of the excess nitrogen on production farms.

Study of long-term application (2-6 tons of litter per acre for 20-30 yrs) in Wilkes County North Carolina revealed levels of phosphorus (P), potassium (K), copper (CU), and zinc (Zn) in the soil above the NC Alert levels, with accumulation within 1-2 feet of the surface. Nitrate-nitrite and bacterial levels exceeding water quality standards (Section NC 2L) were detected in groundwater. Zinc levels exceeding water quality standards (Section NC 2B) were found in surface waters (Wang et al., 2007).

The high solubility of Arsenic (As) from litter and its apparent ready mineralization to inorganic forms coupled with the large quantity litter that is annually land-applied in the USA suggests a potential detrimental effect on soil and water quality in the long term (Jackson et al., 2003).

Pathogens can be transmitted from animals to humans from stormwater runoff on manured surfaces to surface waters or to groundwater via percolation (Gerba and Smith, 2005). Water supply concerns include human disease outbreaks from Salmonella spp., Campylobacter spp., Listeria monocytogenes, E. coli, Crytosporidium parvum, and Giardia lamblia, all of which are endemic in poultry flocks (Center for Disease Control and Prevention, 1998).

Research being performed jointly at Kansas State and North Carolina State universities indicates that extensive use of antibiotics as growth promoters in the livestock industry constitutes strong selection pressure for evolution and selection of antibiotic resistant bacterial strains. Insects such as house flies (Musca domestica) and German cockroaches (Blattella germanica) can move freely between animal waste and food and may play a significant role in the dissemination of antibiotic resistant bacteria within and between animal production farms and from farms to residential settings (Ahmad et al., 2011).

Analyses of poultry litter confirmed the presence of veterinary pharmaceuticals in poultry waste, and thus identify poultry litter as a vehicle for spreading veterinary pharmaceuticals into the environment. The antimicrobials virginiamycin, monensin, salinomycin, narasin and nicarbazin used as feed additives by the poultry industry can be detected in poultry litter. This, combined with findings from other studies on persistence and fate of veterinary pharmaceuticals, emphasizes the importance of proper storage, treatment, and monitoring of animal waste for veterinary pharmaceuticals (Furtula et al., 2009).

Field studies have indicated that estrogens (present in livestock wastes land applied to agriculture fields) are sufficiently mobile and persistent to impact surface and ground water quality (Hanselman et al., 2003). The impacts on human health from endocrine-disrupting compounds such as estrogens are currently a major research area.

## 3.4.2 Regulatory Gaps

In North Carolina, poultry houses fall under general statute 143-215.10. To date, DWR has not issued any NPDES permits under subsection C of the statute to any dry litter facilities. DWR interprets subsection B definitions of animal operations to apply only to liquid manure operations. Although subsection C indicates that 40 CFR 122 [Confined Animal Feeding Operations (CAFO) regulations] can be applied to facilities with greater than 125,000 chickens (if non-laying hens) or 85,000 laying hens, DWR indicates

that USEPA requires permitting only if the dry litter operation is discharging or proposes to discharge directly to surface waters of the state. Currently, there are no individual NPDES permits in North Carolina issued to dry litter operations under the federal CAFO regulations (personal communication, Christine Lawson, AFO Permitting and Compliance, NCDENR Division of Water Quality, 2/21/11).

Under NC general statute 143-215.10C, chicken houses with more than 30,000 birds that use a dry litter manure system are currently deemed permitted by DWR and are required to develop and maintain records for a waste management plan. Under subsection F of the regulations, DWR can inspect the plan and records, and if the plan is deemed insufficient can require an individual NPDES permit. To date, no such enforcement actions have taken place. Additionally, under current state regulatory and non-regulatory management practices and policies, there are no centrally maintained publicly available records kept for tracking purposes which indicate where poultry litter is applied, in what amounts, and when it was applied. Therefore, there are no existing means for evaluating simultaneous operations and watershed scale management practices (personal communication, Christine Lawson, AFO Permitting and Compliance, NCDENR Division of Water Quality, 2/21/11).

### 3.4.3 Implications

Based on the information summarized above for poultry processing wastewater land application and poultry litter land application, we would expect the proposed processing facility to add more agricultural activity generating considerably more nutrients than currently cycle within the local watersheds that drain the expected additional chicken houses. Per the information on poultry house waste from NCSU, we would expect 544 large bird chicken houses and 24 small bird chicken houses to generate approximately 126,680 tons of additional waste each year that would be deemed permitted and essentially go unregulated. Vest et al. (2004) found that stockpiled chicken litter averaged 36 lbs of total nitrogen per ton of manure and 55 lbs of phosphorus per ton of manure. Thus the expected annual amount of litter associated with the proposed SFI production farms would correspond to approximately 4.6 million lbs of nitrogen per year and 7.0 million lbs of phosphorus per year.

The USDA MANAGE database information (Harmel, 2008 and 2009) and USDA (Gollehon et al., 2001) and NC Cooperative Extension (NCSU, 2005) manure studies suggest that the region surrounding the proposed facility can expect a significant amount of the excess nutrients generated by the production farms to runoff the land, enter through groundwater, or be deposited from the atmosphere into nearby waterways. If we apply the USDA ARS estimates of 10 – 25 percent export of nitrogen load and 4 – 9 percent of phosphorus load export (which assumes 100 percent use of best management practices, so is conservative), then we estimate loading to receiving waters of approximately 460,000 lbs to 1,150,000 lbs of additional nitrogen pollution and approximately 280,000 to 630,000 lbs of additional phosphorus pollution. USDA NRCS (2008) and Whitall et al. (2003) information indicates that a significant additional amount of nitrogen loading to nearby waterbodies can be expected from ammonia emissions and subsequent deposition associated with poultry operations. To place this in context, the combined total nitrogen load of the 22 permitted NPDES facilities in the Neuse River Compliance Association (representing a combined average wasteflow of approximately 102 MGD in 2010) was approximately 925,000 lbs in 2010 (NRCA, 2010).

The anticipated increase in chicken houses to support the new slaughterhouse is expected to spread across three basins – Lumber, Cape Fear, and Neuse. The Neuse River has been designated as Nutrient Sensitive Waters (NSW) since 1990 and has been under a Nutrient Management Strategy since 1997. To date, the Neuse River Compliance Association have demonstrated through long-term monitoring a 70 percent decrease in nitrogen loading (the primary nutrient of concern in that basin). Thus, new sources of

nutrients of the magnitude generated by the SFI slaughterhouse have the potential to more than undo all that has been accomplished. It is important that DWR, as the regulatory agency, conduct mass balance accounting that includes secondary impacts of this profound magnitude.

Further, it is recommended that DWR conduct fate and transport modeling to examine the cumulative impacts of multiple sources of animal/poultry waste along with other point and nonpoint sources. For example, the Mountaire Farms facility at Lumber Bridge, NC and the Smithfield Foods facility at Tar Heel, NC are relatively close to this proposed facility. In addition to nutrient sensitivity in the Neuse River Basin, DWR is currently addressing nutrient related problems in the Cape Fear River Basin. Cumulative impacts of nutrients in the Lumber Basin need to be addressed for both North Carolina and the downstream portion in South Carolina. Given the magnitude of potential nonpoint source nutrient loading from all of the added chicken houses in the region, it should be incumbent on DWR to conduct accurate fate and transport studies. The tools developed for modeling these interactions can also be used to model the impacts of changed business models for waste management that can mitigate these types of impacts while improving the economics of the regions (see Recommendations sections below).

### 3.4.4 Recommendations

Given the potential for profound secondary impacts from the proposed SFI poultry slaughtering facility, it is recommended that NC DENR either reject the non-discharge permit application or require mitigation. The latter could take the form of requiring SFI to complete its business model by including waste management of poultry litter generated by the farms supplying the slaughterhouse facility. In particular, land application of chicken litter should be avoided since even with 100 percent implementation and maintenance of best farming practices, profound environmental impacts would be expected as detailed above. Instead, SFI should be required to employ more sustainable practices such as anaerobic digestion of poultry litter waste. The energy generated by the anaerobic digestion of the chicken litter could be captured and input to the local power grid, and the nutrients in the ash byproduct could be used to generate fertilizer with appropriate nitrogen to phosphorus ratios for NC soils.

Additionally, SFI should agree to obtain its feed for chickens (which it requires the poultry growers to use) from local farms. Importing feed from outside of the watersheds means that SFI is greatly increasing the amount of nutrients entering the watersheds. Using local feed sources would provide for recycling nutrients and maintaining a more natural balance.

Taking these mitigative measures would be a great example for the State of North Carolina to demonstrate that business models that are complete from a triple bottom line perspective generate more jobs, more tax revenue, and better protect the environment and therefore build stronger communities. In this light, regulatory management is not threatening jobs but rather is generating more jobs, generating greater economic prosperity for the region, and all while protecting the environment for the future of this region of North Carolina.

DWR should conduct comprehensive, watershed-based studies of the impacts of new sources of nutrients of this magnitude. Modeling tools should be developed that can accurately assess conditions with and without mitigation measures like those noted above. Understanding the import and export of nutrients should be a critical part of any DWR evaluation regarding a facility like that proposed by SFI.

# 4.0 CONCLUSIONS AND RECOMMENDATIONS

1. The Groundwater Mounding Analysis prepared by Nutter & Associates (5/4/2015) may significantly underestimate the potential for water table mounding caused by wastewater irrigation at the site. The hydraulic conductivity values used to calculate mounding are approximately an order of magnitude greater than the value of 0.98 ft/day reported in the Hydrogeologic Report. The porosity of sandy clay loam to coarse sand aquifer media identified in the Groundwater Mounding Analysis report is much higher than the representative specific yield value of 0.11 reported in the Hydrogeologic Report. Using hydraulic property estimates from the Hydrogeologic Report, a significantly greater potential for groundwater mounding is predicted than reported and a high potential exists for ground surface pooling, overland flow, and groundwater flow to manmade ditches as well as to natural drains (swales) and streams.

2. The land application permit does not address secondary and cumulative impacts, which are expected to be significant for the proposed SFI facility. The permit application does not describe the impacts from the new poultry operations that would be generated by construction and operation of the SFI poultry processing plant. However, a similar plant was proposed for Nash County NC and information is available that provides insight to the potential magnitude of impact. Information previously provided to Nash County by SFI estimates that a new processing facility is expected to result in 496 broiler new chicken houses, 48 new breeder chicken houses, and 24 new pullet chicken houses. SFI indicated that these chicken houses are expected to be located on farms within a 75 mile radius of the slaughter plant. According to a 2005 NC Cooperative Extension literature review, the poultry industry is faced with three major water quality and nonpoint source pollution issues: 1) processing plant waste (evaluated in previous sections of this memo); 2) mortality management; and 3) manure/litter management. Other secondary impacts that should be considered include groundwater withdrawals, traffic, odors, and others.

   It is essential that DWR model the cumulative impacts of nutrient loading using a fate and transport model such as SWAT that could combine all sources and address varying litter management practices before deciding whether to permit the SFI facility. The potential impacts resulting from the SFI business model of importing feed for chickens that it slaughters are profound; the additional nutrients being brought to the watersheds where chicken litter is stockpiled and land applied are significant, and need to be accounted for beyond typical assumptions for land cover export of nutrients. DWR should also require the analysis to consider the similar impacts of imported nutrients from interacting facilities (Mountaire Farms and Smithfield Foods).

3. The wastewater management plan is flawed in multiple ways.

   a. The basis for the design flow and wastewater characteristics are not sufficiently described in the application (there are no descriptions of the comparable facilities used to justify the flows and characteristics).

   b. Documentation on the fate of residuals from the wastewater treatment system (primarily the sludge storage/thickening basin) is lacking. There is no indication that Terra Renewal Services has the capacity to handle residuals from this facility.

   c. Stormwater flow is proposed to be treated in the wastewater system, but no detailed design information on stormwater generation or basin design have been provided.

d. The applicant seeks a power reliability variance for the activated sludge system, but the requirements of 15A NCAC 02T .0505 (l)(2)(C) do not appear to be met: by most accepted engineering standards, an activated sludge plant cannot "tolerate septic wastewater due to prolonged detention".

e. The design calls for only a single train. Given the size and complexity of the system, at least two trains should be provided.

f. The design hydraulic retention time for the anaerobic lagoon is low (7.95 days) relative to most standards. This is exacerbated by the proposal to use the anaerobic lagoon as both a treatment and flow equalization system. The organic loading rate to the anaerobic lagoon also appears to be extremely high (>20,000 lb/acre-day).

4. Groundwater pollutant fate and transport modeling should be required as part of the application for this system, given the high density of irrigation and relatively aggressive proposed agronomic rates, in compliance with 15A NCAC 02T .0505(c).

5. DWR's draft non-discharge permit shows no effluent limits (besides Flow) in Attachment A. The effluent limits should minimally be those specified in 15A NCAC 02T .0505(b).

# 5.0 BIBLIOGRAPHY

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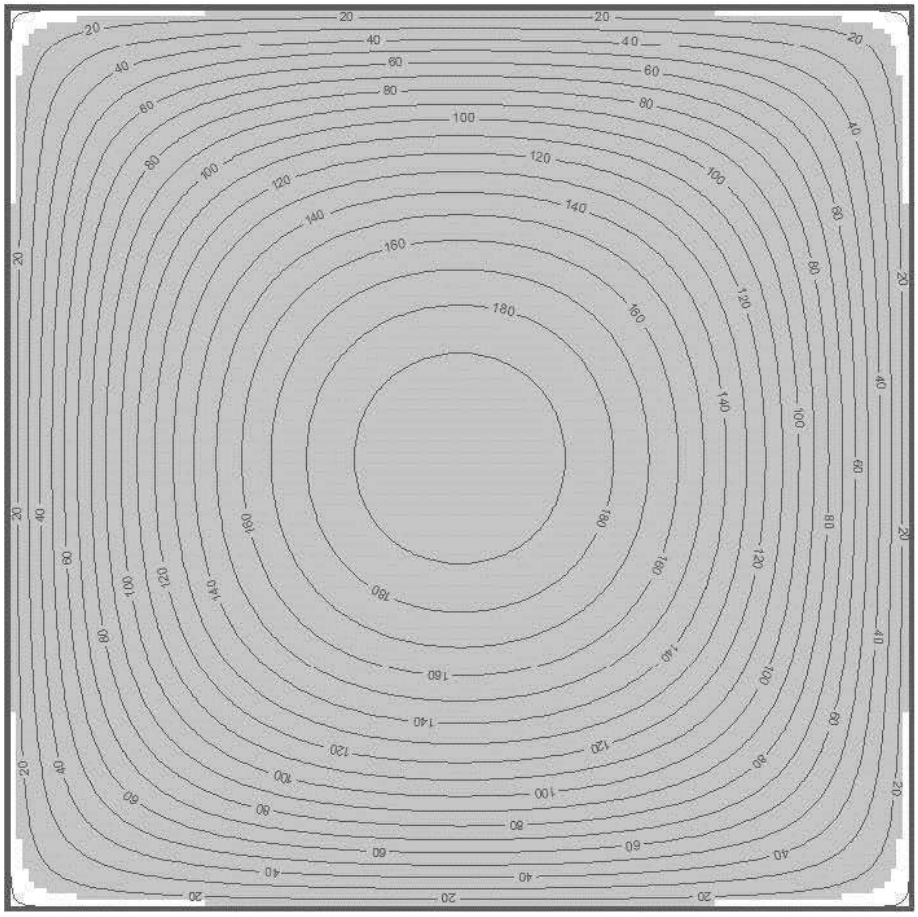
# APPENDIX A LIST OF MATERIAL REVIEWED

| # | Title | Date | Preparer | Contents | Relevence | Filename |
|---|---|---|---|---|---|---|
| 1 | Agronomist Evaluation | 5/1/2015 | Nutter and Associates (David Huff) | Site assimilative capacity, vegetation management | Agronomy | Agronomist evaluation |
| 2 | application cover letter | 5/5/2015 | Sanderson Farms (Brenda Flick) | Brief project description, appl. Contents | General/overall | Cover letter |
| 3 | Design Calculations - Wastewater Treatment Facilities | Apr-15 | Chas. N. Clark Associates (Jeffrey Graves) | Lagoon, air, pump, land app. Design | Engineering | Design calculations |
| 4 | Wastewater Irrigation Systems application form | 5/1/2015 | Chas. N. Clark Associates (Jeffrey Graves) | Background info and contents of app | General/overall | DWR Form WWIS 11-13 |
| 5 | SELC summary of info | ND | SELC | Background on regulatory requirements | General/overall | General Legal Requirements - Nondischarge Permit |
| 6 | Hydrogeologic Report | 5/4/2015 | Nutter and Associates (David Huff) | General hydro, background, model | Hydrogeology | Hydrogeologic Report (pt 1) |
| | Hydrogeologic Report - appendices | 5/4/2015 | Nutter and Associates (David Huff) | Appendices B-G | Hydrogeology | Hydrogeologic Report (pt 2) |
| | Hydrogeologic Report - appendices | 5/4/2015 | Nutter and Associates (David Huff) | Appendix H | Hydrogeology | Hydrogeologic Report (pt 3) |
| 7 | Wastewater Irrigation System Power Reliability | ND | Unk. | Request for variance on power requirements | Engineering | Power Reliability |
| 8 | Project Manual - Land Treatment System | ND | Unk. | Bid docs and specs on land app system | Engineering | Project Manual - Land Treatment System |
| 9 | Project Manual - Wastewater System | ND | Unk. | Bid docs and specs on wastewater treatment system | Engineering | Project Manual - Wastewater Treatment (pt) |
| 10 | Property Ownership Documentation | ND | Unk. | Legal docs re: land | Other | Property Ownership Documentation |
| 11 | Additional Information Request | 7/7/2015 | NCDENR (Nathanial Thornburg) | Request for additional information | General/overall | Sanderson - Additional Information Request |
| 12 | Delegation Letter - Attachment C.1 | 7/15/2015 | Sanderson Farms (Mike Cockrell) | CFO delegate authority to sign permit docs | Other | Sanderson - Application Part 1 |
| 13 | Dam Levee Exemption Letter - Attachment C.2 | 7/16/2015 | Terracon | Hazard classification form and maps | Other | Sanderson - Application Part 2 |
| 14 | Wetland Permitting Documentation - Attachment C.3 | 6/19/2015 | Nutter and Associates (Alan Moore) | Corps Jurisdictional Determination and map | Other/secondary impacts | Sanderson - Application Part 3 |
| 15 | Pond Label Distinction Drawings - Attachment C.5 | ND | Unk. | no contents | Null | Sanderson - Application Part 5 |
| 16 | Kinston Processing Plant Effluent Flow Records - Attachment C.6 | 7/6/2015 | Unk. | Effluent flow and spray irrigation daily records | Engineering | Sanderson - Application Part 6 |
| 17 | Site Map - Attachment C.7 | ND | Unk. | no contents | Null | Sanderson - Application Part 7 |
| 18 | Kinston Processing Plant Total Effluent Phosphorus Records - Attachment C.8 | 6/25/2015 | Unk. | Daily effluent TP concentrations | All | Sanderson - Application Part 8 |
| 19 | Amended V.II.9 - Specifications for Screens - Attachment C.9 | ND | Unk. | Revised sheet 5 of applications | Engineering | Sanderson - Application Part 9 |
| 20 | Separate Sections VI Form - Attachment C.11 | ND | Unk. | Revised sheet 7 of application for each impoundment | Engineering | Sanderson - Application Part 11 |
| 21 | Proposed Encroachment Agreements Piedmont Natural Gas - Attachment I.1 | 7/14/2015 | Unk. | Piedmont encroachment permit | Other | Sanderson - Engineering Plans Part 1 |
| 22 | Irrigation/Wastewater Treatment System Proposed Encroachment - Att. I.3 | 7/9/2015 | Unk. | DOT encroachment agreement for irrigation lines | Engineering | Sanderson - Engineering Plans Part 2.5 |
| | | | | | | Sanderson - Engineering Plans Part 2 |
| 23 | Robeson County Irrigation Construction Approval Letter - Att. I.6 | 7/15/2015 | Robeson Co. Planning (Dixon Ivey) | Documentation not in flood hazard area | Engineering | Sanderson - Engineering Plans Part 3 |
| 24 | Table Showing Areas... - Attachment I.7 | ND | Unk. | ID of structures, wells, roads, ditches impacted | Engineering | Sanderson - Engineering Plans Part 4 |
| 25 | Sheet M.4.0 Revised - Attachment I.13 | ND | Unk. | no contents | Null | Sanderson - Engineering Plans Part 5 |
| 26 | Sheet M.1.4, M.9.1 - Attachment I.14 | ND | Unk. | no contents | Null | Sanderson - Engineering Plans Part 6 |
| 27 | Sheet M.9.0 P&ID - Attachment I.15 | ND | Unk. | no contents | Null | Sanderson - Engineering Plans Part 7 |
| 28 | Sheet C.4 Revised - Attachment I.16 | ND | Unk. | no contents | Null | Sanderson - Engineering Plans Part 8 |
| 29 | Ready-Aquifer Test Results - Attachment G.1 | ND | Unk. | Aquifer test results | Hydrogeology | Sanderson - Hydrogeologic Report |
| 30 | Power Reliability Plan - Attachment M.1 | ND | Unk. | Revised power variance request | Engineering | Sanderson - Power Reliability |
| 31 | North Carolina Warranty Deeds - Attachment D.1 | ND | Unk. | Legal docs re: land | Other | Sanderson - Property Ownership Documentation |
| 32 | Additional Information Request response | 7/20/2015 | Chas. N. Clark Associates (Jeffrey Graves) | Item by item response to AIR letter | All | Sanderson - Reply |
| 33 | Permitted Land Application Site for Disposal of Biosolids - Attachment O.1 | 4/30/2015 | Terra Renewal (John Pipkin) | Confirmation of land app sites in SC | Other | Sanderson - Residuals Management Plan |
| 34 | Specification Section 02202 Lagoon Construction - Attachment J.1 | 7/20/2015 | Unk. | Revised spec section | Engineering | Sanderson - Specifications |
| 35 | Table of Contents for response to additional info request | 7/23/2015 | Unk. | TOC for response to AIR | All | Sanderson - Table of Contents |
| 36 | APS Regional Staff Report | 5/5/2015 | Aquifer Protection Section (Jim Barber) | Staff site report | All | Sanderson Farms St Pauls Staff Rpt & Docs OCR |
| 37 | SC land application sites letter | 4/30/2015 | Terra Renewal (John Pipkin) | Confirmation of land app sites in SC | Other | SC Permits for Land Application |
| 38 | Soil Evaluation | 5/1/2015 | Nutter and Associates (David Huff) | Site description, soil evaluation, recommendations | Soils | Soil Evaluation (Pt 1) |
| | Soil Evaluation | 5/1/2015 | Nutter and Associates (David Huff) | Attachments/appendices | Soils | Soil Evaluation (Pt 2) |
| 39 | Wastewater Chemical Analysis | ND | Unk. | Design effluent concentrations and data | All | Wastewater Chemical Analysis |
| 40 | Water Balance | 5/1/2015 | Nutter and Associates (David Huff) | Water balance | Soils | Water Balance |
| | Additional Information Request 2 | 8/10/2015 | DWR | Request for Information | All | DWR Request for Information 8.10.2015 |
| | Encroachment permit | | | Encroachment permit | Other | Sanderson Permit to Encroach from NCDOT 1006 |
| | Encroachment permit | | | Encroachment permit | Other | Sanderson Permit to Encroach from NCDOT |
| | Encroachment permit | | | Encroachment permit | Other | Sanderson Permit to Encroach from Piedmont Nat Gas |
| | Draft permit notice/fact sheet | | DWR | Draft permit notice/fact sheet | All | WQ0037772 Fact Sheet 150902 |
| | Draft permit | | DWR | Draft permit | All | WQ0037772dp150826 |
| | Engineering plan sheets | various | various | Engineering plan sheets | Engineering | various |

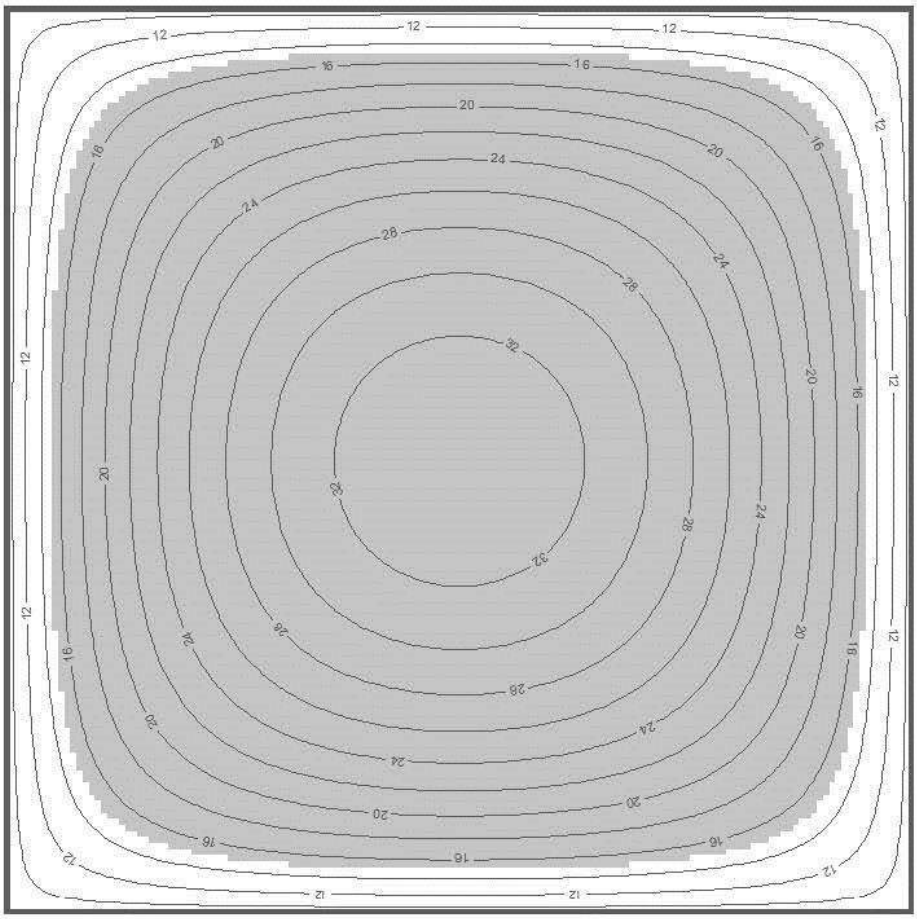
# APPENDIX B GROUNDWATER MOUNDING SIMULATIONS

**Hantush Mounding Calculation Parameters**

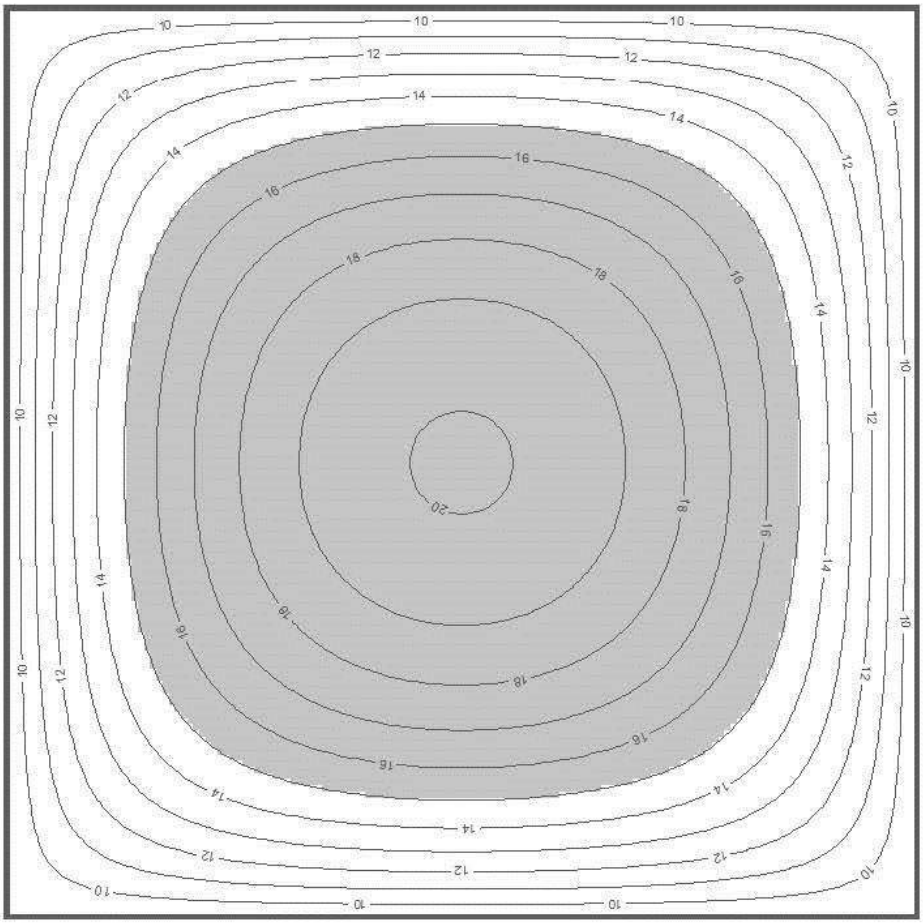
| Simulation ID | Hydraulic Conductivity, K (ft/day) | Specific Yield, Sy | Initial Saturated Thickness, h(0) (ft) | Recharge Rate in rectangular recharge area (ft/d) | Simulation time, t (days) | Time when recharge stops, t(0) (days) | X, coordinate at center of rectangular recharge area (ft) | Y, cooridnate at center of rectangualr recharge area (ft) | l, length parallel to x axes of rectangular recharge area (ft) | a, length parallel to y axis of rectangular recharge area (ft) |
|---|---|---|---|---|---|---|---|---|---|---|
| Run-1: Set K to 0.98 ft/d | 0.98 | 0.11 | 9 | 0.0169 | 365 | 365 | 750 | 750 | 1500 | 1500 |
| Run-2: Set K to 10 cm/hr (7.9 ft/d) | 7.9 | 0.11 | 9 | 0.0169 | 365 | 365 | 750 | 750 | 1500 | 1500 |
| Run-3: Set K to 23.56 cm/hr (18.6 ft/d) | 18.6 | 0.11 | 9 | 0.0169 | 365 | 365 | 750 | 750 | 1500 | 1500 |



MODFLOW Steady-State Simulation Case #1
Hydraulic head contour interval = 1.0 ft
Aquifer bottom = 0.0 ft
Aquifer top = 15.0 ft
Constant heads at perimeter of 1500' x 1500' domain = 9.0 ft
Uniform K = 0.98 ft/d
Uniform recharge rate = 0.0169 ft/d
Simulated as unconfined aquifer
Blue indicates where simulated water table exceeds ground surface



MODFLOW Steady-State Simulation Case #2
Hydraulic head contour interval = 2.0 ft
Aquifer bottom = 0.0 ft
Aquifer top = 15.0 ft
Constant heads at perimeter of 1500' x 1500' domain = 9.0 ft
Uniform K = 7.9 ft/d
Uniform recharge rate = 0.0169 ft/d
Simulated as unconfined aquifer
Blue indicates where simulated water table exceeds ground surface




MODFLOW Steady-State Simulation Case #3
Hydraulic head contour interval = 1.0 ft
Aquifer bottom = 0.0 ft
Aquifer top = 15.0 ft
Constant heads at perimeter of 1500' x 1500' domain = 9.0 ft
Uniform K = 18.6 ft/d
Uniform recharge rate = 0.0169 ft/d
Simulated as unconfined aquifer
Blue indicates where simulated water table exceeds ground surface

Hantush #1 - no boundaries.txt

Transient Water-Table Rise Beneath a Rectangular Recharge Area
Groundwater Mounding Solution by Hantush (1967)

Aquifer Properties:
Hydraulic conductivity, K = 0.98 ft/day
Specific yield, Sy = 0.11
Initial saturated thickness, h(0) = 9 ft

Recharge Area Properties:
Recharge rate, w = 0.0169 ft/day
Simulation time, t = 365 day
Time when recharge stops, t(0) = 365 day
X coordinate at center of recharge area, X = 750 ft
Y coordinate at center of recharge area, Y = 750 ft
Length in x direction, l = 1500 ft
Length in y direction, a = 1500 ft

Water-Table Rise at Center of Recharge Area:

| t (day) | h (ft) |
|---|---|
| 36.5 | 5.60773 |
| 73 | 11.2155 |
| 109.5 | 16.823 |
| 146 | 22.4245 |
| 182.5 | 27.9804 |
| 219 | 33.3988 |
| 255.5 | 38.5692 |
| 292 | 43.4092 |
| 328.5 | 47.8817 |
| 365 | 51.9857 |

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Report generated by AQTESOLV v4.50.002 (www.aqtesolv.com) on 09/23/15 at 15:44:26.

Hantush #2 - no boundaries.txt

Transient Water-Table Rise Beneath a Rectangular Recharge Area
Groundwater Mounding Solution by Hantush (1967)

Aquifer Properties:
Hydraulic conductivity, K = 7.9 ft/day
Specific yield, Sy = 0.11
Initial saturated thickness, h(0) = 9 ft

Recharge Area Properties:
Recharge rate, w = 0.0169 ft/day
Simulation time, t = 365 day
Time when recharge stops, t(0) = 365 day
X coordinate at center of recharge area, X = 750 ft
Y coordinate at center of recharge area, Y = 750 ft
Length in x direction, l = 1500 ft
Length in y direction, a = 1500 ft

Water-Table Rise at Center of Recharge Area:

| t (day) | h (ft) |
|---|---|
| 36.5 | 5.60342 |
| 73 | 10.9004 |
| 109.5 | 15.2292 |
| 146 | 18.5783 |
| 182.5 | 21.2074 |
| 219 | 23.3312 |
| 255.5 | 25.0935 |
| 292 | 26.5891 |
| 328.5 | 27.8818 |
| 365 | 29.0161 |

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Report generated by AQTESOLV v4.50.002 (www.aqtesolv.com) on 09/23/15 at 15:43:41.

Hantush #3 - no boundaries.txt

Transient Water-Table Rise Beneath a Rectangular Recharge Area
Groundwater Mounding Solution by Hantush (1967)

Aquifer Properties:
Hydraulic conductivity, K = 18.6 ft/day
Specific yield, Sy = 0.11
Initial saturated thickness, h(0) = 9 ft

Recharge Area Properties:
Recharge rate, w = 0.0169 ft/day
Simulation time, t = 365 day
Time when recharge stops, t(0) = 365 day
X coordinate at center of recharge area, X = 750 ft
Y coordinate at center of recharge area, Y = 750 ft
Length in x direction, l = 1500 ft
Length in y direction, a = 1500 ft

Water-Table Rise at Center of Recharge Area:

| t (day) | h (ft) |
|---|---|
| 36.5 | 5.46882 |
| 73 | 9.58411 |
| 109.5 | 12.3312 |
| 146 | 14.289 |
| 182.5 | 15.7789 |
| 219 | 16.9683 |
| 255.5 | 17.9512 |
| 292 | 18.785 |
| 328.5 | 19.5065 |
| 365 | 20.1407 |

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Report generated by AQTESOLV v4.50.002 (www.aqtesolv.com) on 09/23/15 at 15:43:04.

# EXHIBIT G

# A Summary of Treated Wastewater Land Application in 2010



*North Carolina Department of Environment and Natural Resources*
*North Carolina Division of Water Resources*
*November 2013*

# A Summary of Treated Wastewater Land Application in 2010

## Executive Summary

This report provides a summary of the volume of treated wastewater that was applied to the land surface in 2010 under permits issued by the Division of Water Resources (DWR). The original purpose of this project was to estimate how much nitrogen and phosphorous is being applied to the land through treated wastewater permits issued by the DWR. Reliable nutrient estimates could not be developed due to a lack of information regarding effluent nutrient concentrations. Since there was inadequate nutrient concentration data, the goal of this project became to develop estimates for the amount of treated wastewater applied to each application area in 2010. The amount of treated wastewater being applied was estimated based on required monthly reports submitted to the DWR. Watershed and county estimates were created based on the individual application area estimates. At approximately 9.3 billion gallons annually, the estimated volume of treated wastewater applied to the land statewide was similar in volume to a single point source discharge of about 25.5 million gallons a day (MGD). Unlike the point source discharges, at least a portion of the land applied nutrients are being taken up by vegetation prior to reaching groundwater or surface waters. This suggests that relative to point source discharges, the land application of treated wastewater is not a significant source of nutrients at the statewide or basin levels, though it still could have significant impacts to water quality at a local level.

In order to estimate the amount of nutrients being applied, it would be necessary to add effluent monitoring for total phosphorous and either total nitrogen or nitrate + nitrite and total kjeldahl nitrogen (TKN). It would also be necessary that effluent monitoring occur at least once a month for every month that application takes place.

## Introduction

As an alternative to discharging treated wastewater directly to surface waters, wastewater treatment plants may apply for a permit that allows them to apply the treated wastewater to the land surface. The four types of permits issued by the DWR relating to the land application of treated wastewater are: wastewater irrigation system, high-rate infiltration system, reclaimed water system, and single-family residence wastewater irrigation system permits. Wastewater irrigation system permits pertain to treated wastewater that is applied to the land using spray irrigation, drip irrigation, and infiltration ponds. In areas where the soils are excessively well drained, such as the coastal plain region, a high-rate infiltration system permit may be an available option. High-rate infiltration system permits have more stringent treatment standards and setbacks (Tables 1 & 2) to provide protection of groundwater at the high application rates available. Some setbacks for high-rate infiltration system may be reduced with increased treatment. Reclaimed Water System permits may be used for more than just irrigation; therefore, they require that the effluent meet even higher standards. This summary only includes reclaimed water system permits where the effluent was applied to the land. Single-family residence wastewater irrigations System permits are small systems that are not required to submit monitoring reports to the DWR.

**Table 1: Effluent Requirements for Treated Wastewater Land Application Permits**

| | Wastewater Irrigation | | High-Rate Infiltration | Reclaimed Water | |
|---|---|---|---|---|---|
| | New | Expanding | | Type I | Type II |
| 5-day Biological Oxygen Demand | 30 mg/L | 30 mg/L | 10 mg/L | 10 mg/L<br>15 mg/L* | 5 mg/L<br>10 mg/L* |
| Total Suspended Solids (TSS) | 30 mg/L | 90 mg/L | 15 mg/L | 5 mg/L<br>10 mg/L* | 5 mg/L<br>10 mg/L* |
| Ammonia ($NH_3$) | 15 mg/L | - | 4 mg/L | 4 mg/L<br>6 mg/L* | 1 mg/L<br>2 mg/L* |
| Fecal Coliform Bacteria | 200 col./100 mL | 200 col./100 mL | 14 col./100 mL | 14 col./100 mL**<br>25 col./100mL* | 3 col./100 mL**<br>25 col./100 mL* |
| Nitrate ($NO_3$) | - | - | 10 mg/L | - | - |
| Turbidity | - | - | - | 10 NTUs | 5 NTUs |
| Coliphage | - | - | - | - | 5 col./100 mL**<br>25 col./100 mL* |
| Clostridium perfringens | - | - | - | - | 5 col./100 mL**<br>25 col./100 mL* |
| All criteria are based on a monthly average except where noted. *Daily Maximum; **Monthly Geometric Mean | | | | | |

**Table 2: Setbacks for Treated Wastewater Land Application Permits (feet)**

| | WW Irrigation | | High-Rate Infiltration | Reclaimed Water |
|---|---|---|---|---|
| | Spray | Drip | | |
| Any habitable residence or place of public assembly under separate ownership or not to be maintained as part of the project site | 400 | 100 | 400 | - |
| Any habitable residence or place of public assembly owned by the permittee or to be maintained as part of the project site | 200 | 15 | 200 | - |
| Any private or public water supply source | 100 | 100 | 100 | - |
| Surface waters (streams – intermittent and perennial, perennial waterbodies, and wetlands) | 100 | 100 | 200* | 25 |
| Surface waters (Class SA) | 100 | 100 | 200* | 100 |
| Groundwater lowering ditches (where the bottom of the ditch intersects the seasonal high water table) | 100 | 100 | 200* | - |
| Surface water diversions (ephemeral streams, waterways, ditches) | 25 | 25 | 50 | - |
| Any well with the exception of monitoring wells | 100 | 100 | 100 | 100 |
| Any property line | 150 | 50 | 200 | - |
| Top of slope embankments or cuts of 2 feet or more in vertical height | 15 | 15 | 100 | - |
| Any water line from a disposal system | 10 | 10 | 10 | - |
| Subsurface groundwater lowering drainage system | 100 | 100 | 200* | - |
| Any swimming pool | 100 | 100 | 100 | - |
| Public right of way | 50 | 50 | 50 | - |
| Nitrification field | 20 | 20 | 15 | - |
| Any building foundation or basement | 15 | 15 | 15 | - |
| Impounded public water supply | - | - | 500 | - |
| Public shallow groundwater supply (less than 50 feet deep) | - | - | 500 | - |
| *Setback can be reduced to 100' with an effluent limit of 7 mg/L of TN and 3 mg/L of TP. Setback can be reduced to 50' with an effluent limit of 4 mg/L of TN and 2 mg/L of TP. | | | | |

## Data Sources and Methodology

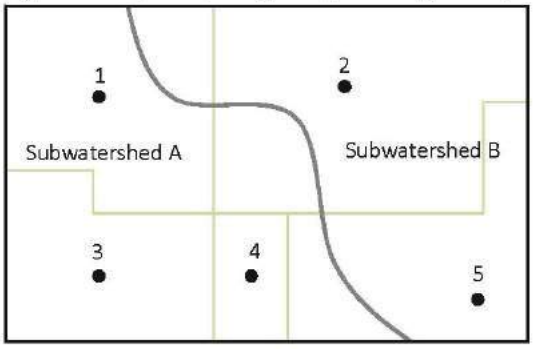
The data used for this project was obtained from the DWR's Basinwide Information Management System (BIMS) database, as well as Non-Discharge Application Reports (NDARs)

and Non-Discharge Monitoring Reports (NDMRs) submitted to the DWQ by the permit owners. Point locations for permitted fields with the amount of permitted acreage were extracted from BIMS and used to create a Geographic Information System shapefile. NDARs contain the amount of treated wastewater applied to each permitted field for a given month in either inches or gallons per square foot. For most sites the volume of wastewater applied to a field was calculated by summarizing the 2010 monthly application rates and multiplying those yearly rates by the size of the application area. An alternative method was used to estimate application by one high-rate infiltration system, four wastewater irrigation systems, and 16 reclaimed water systems because they reported flow through the facility but not application rates to the land. Their annual application volumes were derived from treatment plant flow data and are included in the statewide summary but not the spatial analysis summaries. Reclaimed water permits issued for purposes other than land application, such as in decorative fountains, were excluded from both the statewide and spatial analysis summaries. A third method was used to calculate single-family residence wastewater irrigation system. Since they do not submit any monitoring report to DWR, their permitted flow was used.

Ideally, once an estimate of the volume of treated wastewater applied to each field was calculated, the NDMRs could be used to estimate the concentration of nutrients. However, the parameters to be monitored and the frequency at which each parameter is to be monitored vary from permit to permit. A permit may require nitrogen monitoring for any or none of the following: Ammonia, Nitrate, Nitrite, Nitrite + Nitrate, Total Kjeldahl Nitrogen (TKN), Plant Available Nitrogen, and Total Nitrogen. Likewise a permit may require phosphorous monitoring for any or none of the following: Orthophosphate, Total Organic Phosphate, or Total Phosphorous. The frequency of the monitoring may vary from no monitoring requirement to twice a week. In addition, a permit may have different frequencies for the individual parameters. For example, ammonia may be required monthly; however, nitrate may be required only three times a year. Due to the lack of data regarding the nutrient characteristics of the treated wastewater being applied, direct measurements could not be used to generate nutrient estimates. A summary of the NDMR data can be found at the end of this report in Appendix A.

Once an estimate for volume applied to each field was calculated, each field was assigned to a subwatershed (12-digit hydrologic unit) and a county. Subwatershed totals were then summarized to the subbasin and basin levels. Since only point data was available, each field was assigned to a subwatershed or county as though it were completely within that subwatershed or county. Figure 1 provides an example of how data associated with a point was attributed to a subwatershed and county polygon. In this example fields 1, 3, and 4 would be assigned to subwatershed A and fields 2 and 5 would be assigned to subwatershed B. A summary of these results can be found in Appendix B.

**Figure 1: Graphic depicting data processing technique**



## Results

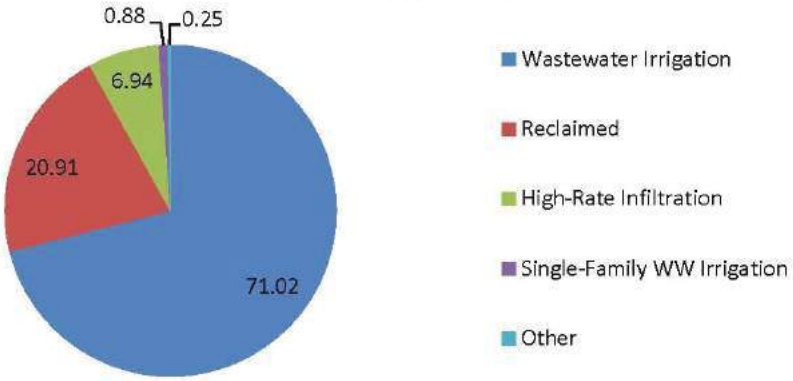
Statewide, of the 1,000 permits that were active in 2010, 332 reported application at some point during 2010. These permitted facilities applied approximately 9.1 billion gallons of treated wastewater to the land during 2010 (Table 3). Another 515 single-family residences were permitted to apply over 81 million gallons. The remaining 153 permits had no wastewater application take place in 2010, were not yet operational, or are no longer in operation and have yet to rescind their permit. The majority of the application was related to 226 wastewater irrigation system permits which accounted for approximately 71 percent of all the treated wastewater application (Table 3 and Figure 2).

**Table 3: Statewide Summary of Treated Wastewater Land Application by Permit Type for 2010**

| Permit Type | Active Permits in 2010 | Permits Reporting Application | Volume in Gallons | Percent of Total Volume |
|---|---|---|---|---|
| Wastewater Irrigation System | 276 | 222 | 6,584,616,836 | 71.02 |
| Reclaimed Water System | 134 | 76 | 1,938,907,793 | 20.91 |
| High-Rate Infiltration System | 63 | 32 | 643,160,740 | 6.94 |
| Single Family Irrigation System | 515 | Not Reported | *81,566,185 | 0.88 |
| Other – Non-Discharge WW | 12 | 2 | 23,092,686 | 0.25 |
| Totals | 1,000 | -- | 9,271,344,240 | 100.00 |

*Permitted Flow

**Figure 2: Percentage of Total Volume of Treated Wastewater Application by Permit Type in 2010**

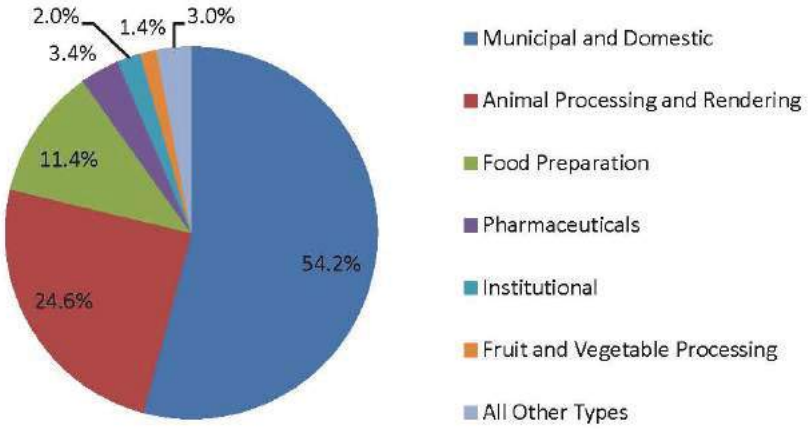



Since wastewater irrigation system permits comprise almost three-quarters of the total volume applied and are most likely to include waste sources other than municipal/domestic, these systems were further examined by waste source type (Table 4 and Figure 3). While municipal and domestic sources accounted for over half of all wastewater irrigation systems volume, one-quarter of the volume is derived from the industrial processing of livestock. Despite only making-up a quarter of the total volume, animal processing facilities may be contributing a much larger percentage of the nutrients being applied through these permits due to the high concentration of nutrients in their effluent. Animal processing and rendering facilities are highlighted yellow in Appendix A. Two facilities, a canning facility and a pharmaceutical manufacturer, made-up another 15 percent of the total applied volume for this permit type. Appendix C provides a list of wastewater irrigation permits with their waste source type.

**Table 4: Statewide Summary of Wastewater Irrigation System Permits by Waste Type for 2010**

| Waste Source | Permits with Application | Volume in Gallons | % of Volume |
|---|---|---|---|
| Municipal and 100% Domestic | 76 | 3,610,518,995 | 54.8 |
| Animal Processing and Rendering | 21 | 1,639,060,214 | 24.9 |
| Food Preparation | 1 | 765,108,237 | 11.5 |
| Pharmaceuticals | 1 | 228,907,750 | 3.5 |
| Institutional (prisons, hospitals, schools) | 40 | 134,824,456 | 2.1 |
| Fruit and Vegetable Processing | 7 | 96,113,537 | 1.5 |
| Animal Truck Wash | 13 | 37,671,806 | 0.6 |
| Lodging, Camping, Rest Area | 22 | 27,271,157 | 0.4 |
| Hatchery | 6 | 14,755,418 | 0.2 |
| Chemical Manufacturing | 2 | 8,528,151 | 0.1 |
| Textile Manufacturing | 1 | 4,627,022 | <0.1 |
| Wood Products Manufacturing | 4 | 4,375,025 | <0.1 |
| Mining | 5 | 2,590,885 | <0.1 |
| Animal Research Laboratory | 2 | 2,071,793 | <0.1 |
| Restaurant | 2 | 758,273 | <0.1 |
| Pesticide & Herbicide Production | 1 | 407,318 | <0.1 |
| Industrial Machinery Manufacturing | 1 | 225,924 | <0.1 |
| Tobacco Processing | 1 | 202,028 | <0.1 |
| Concrete/Asphalt Production | 2 | 147,639 | <0.1 |
| Car Wash | 2 | 93,109 | <0.1 |
| Oil Terminal | 2 | 80,387 | <0.1 |
| Animal Shelter or Hospital | 1 | 68,904 | <0.1 |
| Laundry Operation | 1 | 51,430 | <0.1 |
| Furniture Manufacturing | 1 | 33,147 | <0.1 |
| Other | 7 | 6,124,231 | 0.1 |
| Total | 222 | 6,584,616,836 | 100.0 |

**Figure 3: Percentage of Total Volume of Treated Wastewater Application through Wastewater Irrigation Permits by Waste Source Type in 2010**




When analyzed at the major river basin scale it becomes apparent that the land application of treated wastewater is more common in the eastern half of the state (Figure 4). The volume of treated wastewater being applied statewide is small, when compared to point source discharges;

however, it is still important to consider local impacts. A high volume of treated wastewater with high nutrient concentrations could have impacts to a small watershed.

**Figure 4: Volume of Treated Wastewater Applied to the Land in 2010 by Basin**

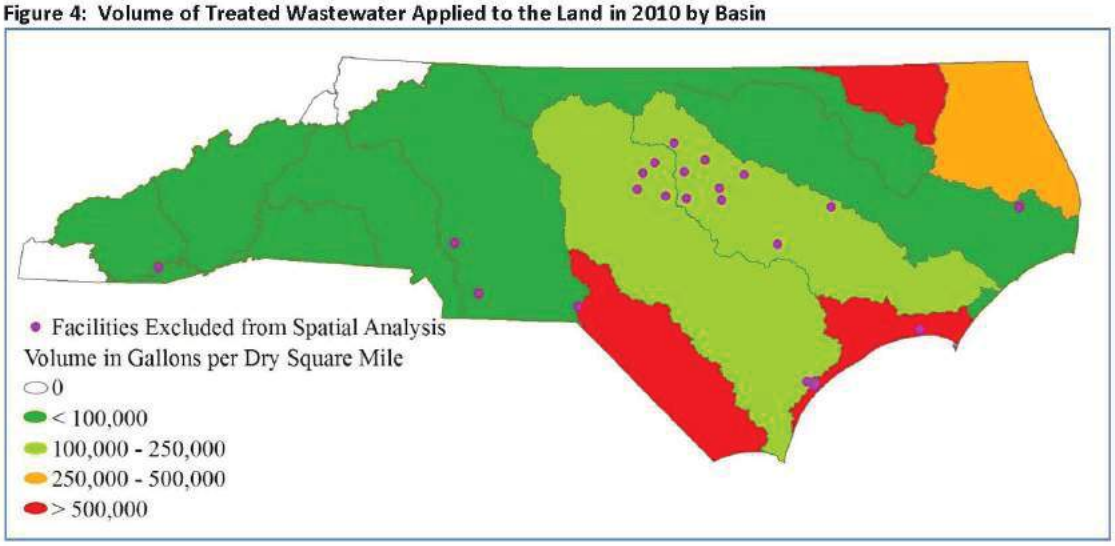
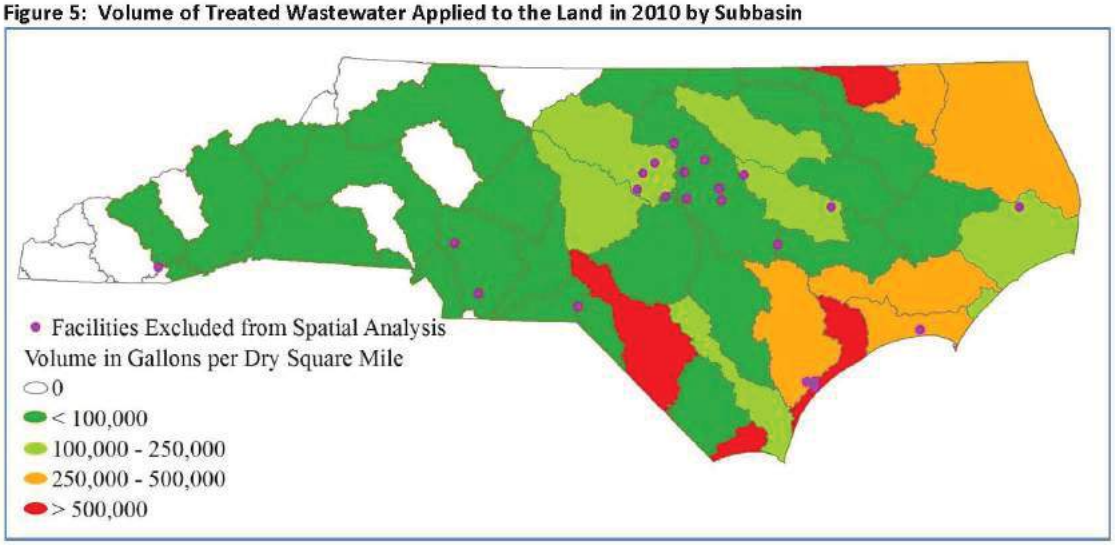



Figure 5 shows the volume of treated wastewater applied to the land in 2010 by subbasin. This figure is a more accurate picture of where the application of treated wastewater is occurring in large volumes, but yet still does not provide the level of detail needed to determine if a site could be impacting the local water quality (Figure 5).

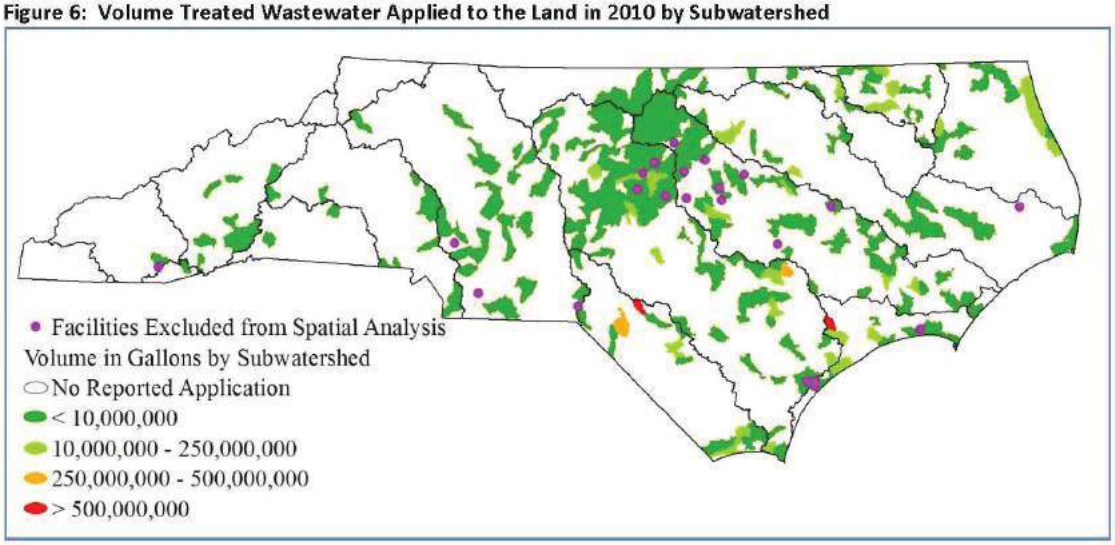
**Figure 5: Volume of Treated Wastewater Applied to the Land in 2010 by Subbasin**




The subwatershed level is a more appropriate scale at which to investigate the potential impacts of treated wastewater land application on water quality (Figure 6). At this scale individual permitted facilities can be identified that may have potential impacts to local water quality.

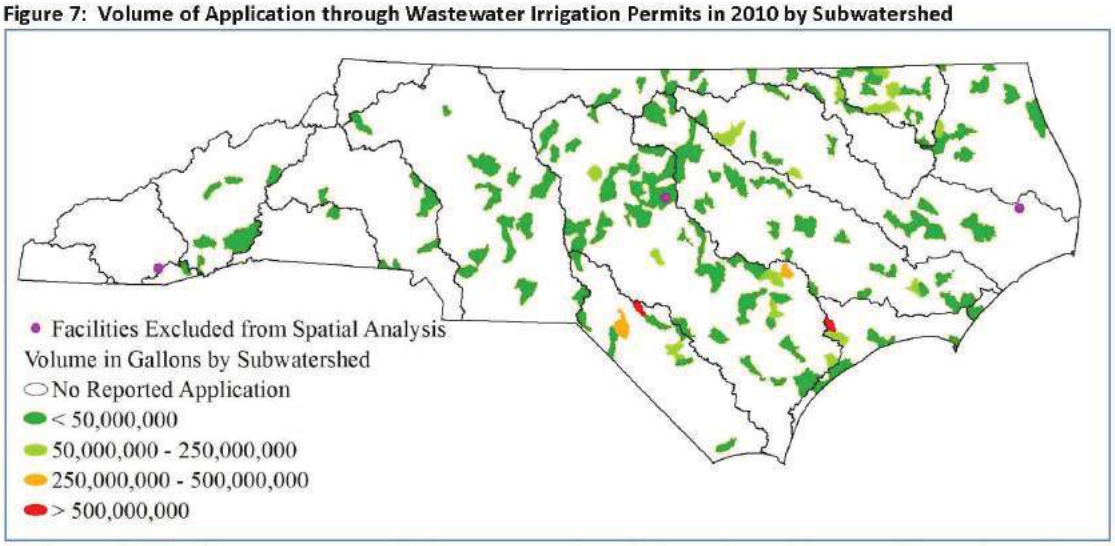
Although a site specific investigation would still be needed to determine any water quality impacts to groundwater and surface waters immediately adjacent to application areas. The Headwaters of Southwest Creek subwatershed, located in the White Oak River basin, had the highest total volume of land applied treated wastewater in 2010 at 1.3 billion gallons. Application rates for fields in this subwatershed ranged in 2010 from 18.87 inches to 41.41 inches. In a typical year this subwatershed receives approximately 55 inches in rainfall.

**Figure 6: Volume Treated Wastewater Applied to the Land in 2010 by Subwatershed**




Figures 7, 8, and 9 illustrate the distribution of treated wastewater land application by the various permit types at the subwatershed scale.

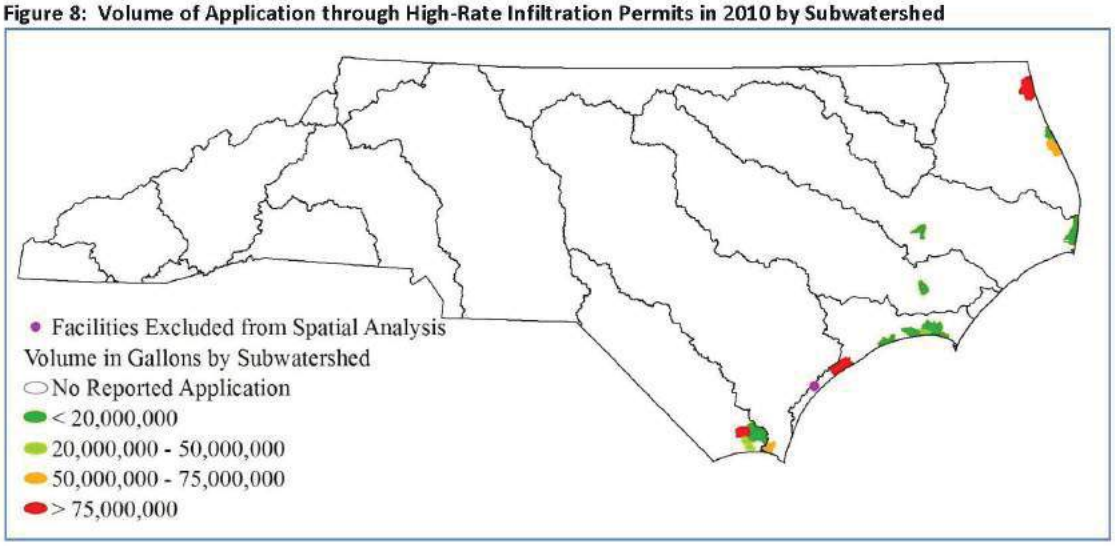
**Figure 7: Volume of Application through Wastewater Irrigation Permits in 2010 by Subwatershed**




High-rate infiltration system permits have currently only been issued in coastal counties (Figure 8). This is due to two factors the presence of extremely sandy soils found in the outer coastal

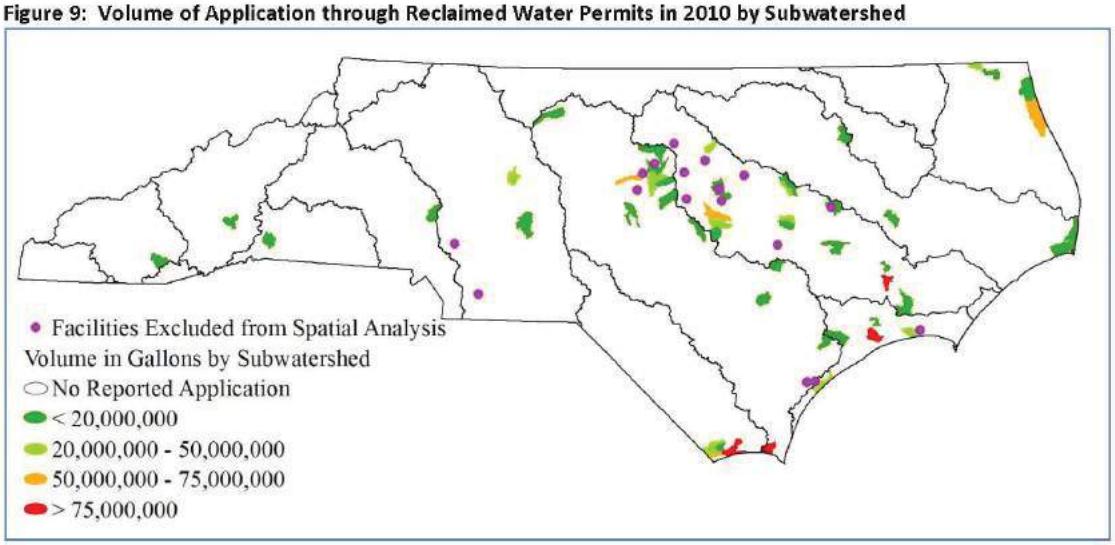
plain and the limited availability of land on barrier islands. Application through high-rate infiltration system permits were only reported in seven coastal counties.

**Figure 8: Volume of Application through High-Rate Infiltration Permits in 2010 by Subwatershed**



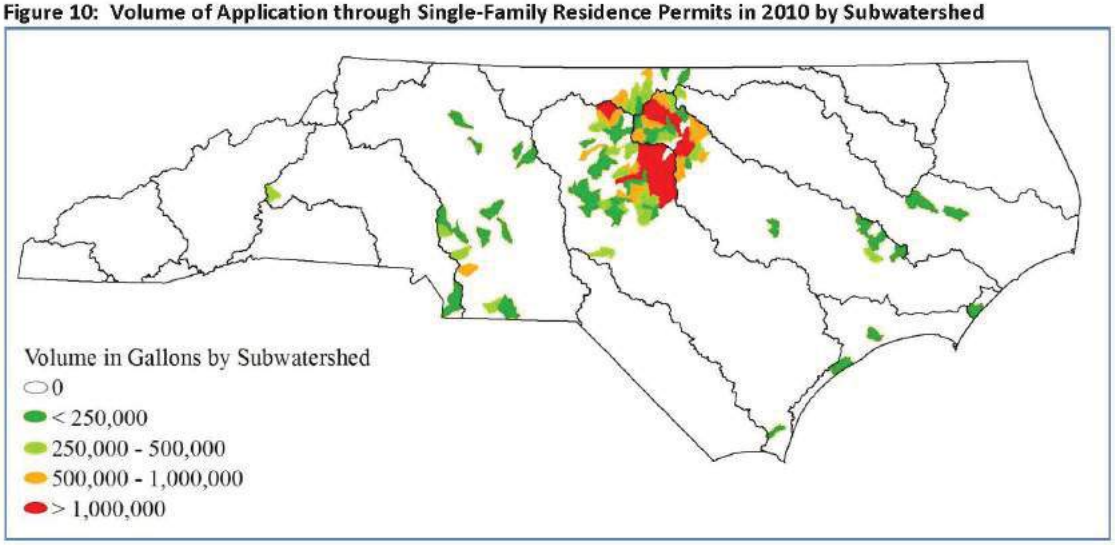

Reclaimed water is commonly used for irrigation of golf courses associated with planned communities and these systems are well represented in Figure 9. However, Figure 9 does not provide an accurate representation of reclaimed water due to a lack of information regarding application areas and rates related to certain reclaimed water system permits that only require the reporting of effluent flow and not application rates or areas receiving application.

**Figure 9: Volume of Application through Reclaimed Water Permits in 2010 by Subwatershed**



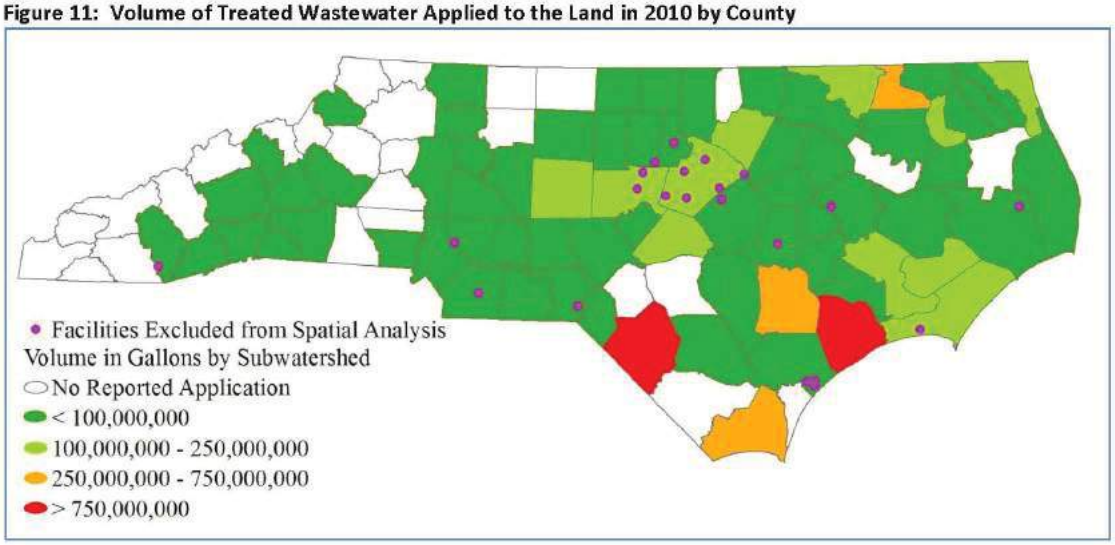
The majority of single-family residence systems are found in the Triassic basin because those soils are usually not suitable for a traditional onsite wastewater system such as a septic tank with a subsurface drain field (Figure 10).

**Figure 10: Volume of Application through Single-Family Residence Permits in 2010 by Subwatershed**




Brunswick, Duplin, Onslow, and Robeson counties received the most land applied treated wastewater in 2010 (Figure 11). In Brunswick and Onslow counties all of the treated wastewater came from municipal or domestic sources and was applied through wastewater irrigation, reclaimed water and high-rate infiltration permits. The treated wastewater being applied in Duplin and Robeson county was almost entirely through wastewater irrigation permits and made-up of mainly industrial sources. It is important to look at the application by county in order to identify stakeholders that operate at a county level. Summary results by county can be found in Appendix D.

**Figure 11: Volume of Treated Wastewater Applied to the Land in 2010 by County**

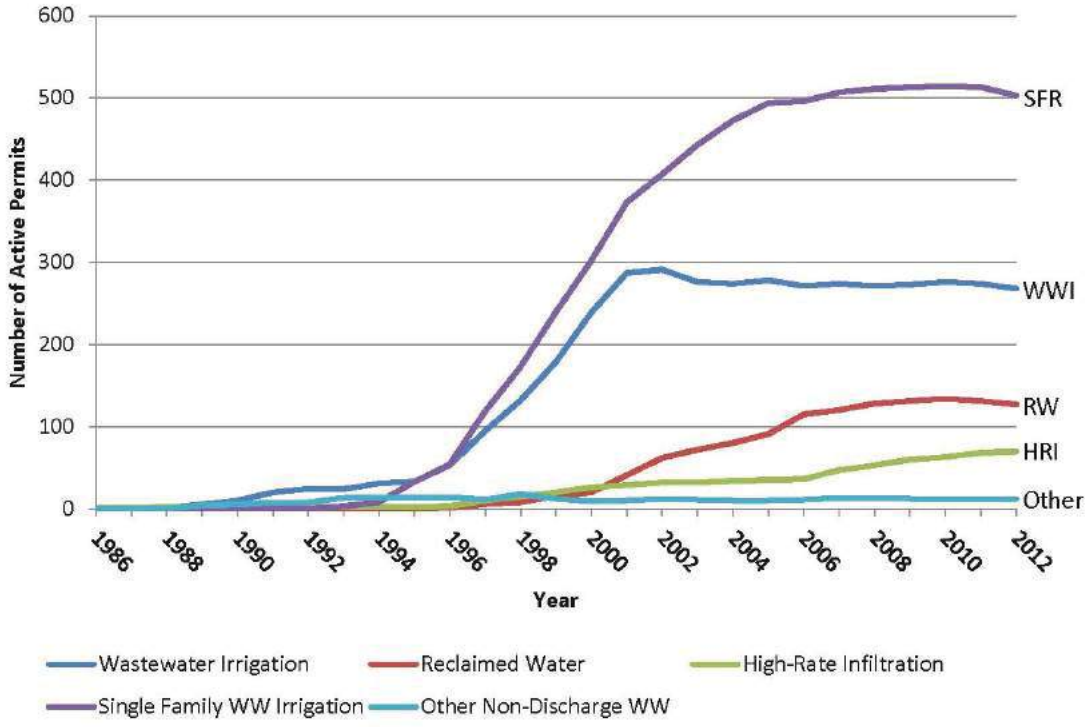


**Discussion**

The volume of land applied treated wastewater is small when compared to point source discharges. The total reported volume of treated wastewater being land applied statewide is less than a single point source discharge of 25.5 million gallons a day. Only one land application permit applied more treated wastewater than generated by a 1 MGD point source discharge. Considering that not all of the nutrients in this water will ever reach groundwater or surface water because at least a portion of the nutrients will be taken up by vegetation, it is unlikely that these permits are contributing nutrients on the scale of point source discharges.

In a typical year the state of North Carolina receives over 43 trillion gallons of precipitation or more than 4,600 times the amount of treated wastewater that was land applied in 2010. Average annual precipitation varies throughout the state from 36 to 100 inches; however over 95 percent of the state receives between 40 and 60 inches of precipitation (USDA-NRCS, 2012). Annual application rates for individual fields in 2010 ranged from 0.02 inches to 3,903 inches with a median of 13.63 inches and a mean of 56.8 inches. A large application area with a high rate of application could have significant influence over a small watershed. Land application permits have become more common over the past twenty years, though the increase has leveled off in recent years (Figure 11). However, as point sources transition to non-discharge wastewater permits and as population in North Carolina grows the number of land application permits is expected to increase. As new land application facilities are permitted or as existing facilities expand, their potential to impact water quality may also increase.

**Figure 11: Non-Discharge Permitting Trends 1986-2012**



Volume alone does not provide enough information to determine whether or not the land application may be impacting water quality. This is because the concentration of the constituents can vary greatly from permit to permit and the site specific conditions, such as soil type or improper management, can impact the effectiveness of the site to attenuate nutrients. Some sites may have underground tile drains or groundwater lowering ditches that may by-pass the necessary in ground treatment of the applied wastewater and circumvent groundwater monitoring wells. Monitoring the nutrient concentrations of such outlets would help to ensure that sites are functioning properly. Also some sites utilize groundwater lowering wells to allow for greater rates of infiltration that may lead to residence time that are inadequate for proper treatment. Nutrient data from these groundwater lowering wells should be closely monitored.

Given the comparatively small volume of wastewater applied under land application permits, and regulations aimed at limiting their potential impact through setbacks and application limits, it seems unlikely that these systems are contributing significantly to water quality issues at the watershed or larger scales. If greater certainty of these influences is needed, it would be necessary to collect monthly total nitrogen and total phosphorous data for each month that application occurs, at all permitted land application sites in order to estimate nutrient application from treated wastewater land application permits.

**References**

USDA-NRCS. "1981-2010 Annual Average Precipitation by State", National Geospatial Management Center, 2012.

**Appendix A: Estimates of the Volume of Treated Wastewater Applied to the Land in 2010 by Individual Permit with a Summary of available NDMR data.**

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| Wastewater Irrigation Systems | | | | | | | | | |
| WQ0000265 | Washington Correctional Center | 1,535,140 | 2.79 | -- | -- | 0.41 | 9.97 | -- | 1.14 |
| WQ0000267 | Gates Correctional Center #4130 | 2,264,776 | 3.34 | -- | 0.04 | -- | 13.88 | -- | -- |
| WQ0000426 | Nor-Am Land Company | 407,318 | 0.48 | -- | -- | 0.07 | 3.06 | -- | 0.06 |
| WQ0000484 | Mountaire Farms Processing Plant | 715,340,476 | 7.20 | 0.05 | 0.09 | -- | 56.81 | -- | 9.77 |
| WQ0000485 | Carolina by Products – Rose Hill Processing | 26,473,042 | 6.55 | 6.08 | 1.74 | -- | 15.76 | -- | 1.11 |
| WQ0000488 | Jordan Lake SRA - Vista Point | 394,932 | 0.68 | 0.03 | 2.90 | -- | 2.85 | -- | -- |
| WQ0000550 | Currituck County Detention Center | 2,527,548 | 5.98 | -- | 0.06 | -- | 9.38 | -- | -- |
| WQ0000579 | Pepsi Cola Bottling-Midland D | 74,291 | 19.83 | -- | 0.03 | -- | 22.60 | -- | -- |
| WQ0000601 | CSX Transportation | 1,023,000 | -- | -- | 0.04 | -- | -- | -- | -- |
| WQ0000633 | Town of Candor WWTP | 31,218,739 | 12.63 | -- | 0.15 | 0.03 | 15.99 | -- | 2.48 |
| WQ0000731 | Lake Toxaway Co-Golf Course | 4,758,802 | 0.11 | -- | 2.43 | -- | -- | -- | -- |
| WQ0000777 | Aulander Town-WWTP/Spray Facility | 53,162,308 | 2.94 | -- | 0.86 | -- | 12.62 | -- | 2.63 |
| WQ0000795 | Surf City WWTF | 153,759,777 | 7.90 | 0.28 | 3.94 | 0.63 | 8.85 | 11.97 | 3.52 |
| WQ0000798 | Shallotte WWTF | 20,796,403 | 7.23 | 0.03 | 0.38 | 0.04 | 11.73 | -- | -- |
| WQ0000819 | Plantation Harbor | 3,585,408 | -- | -- | -- | -- | -- | -- | -- |
| WQ0000884 | Mt Olive Turkey Processing Facility | 464,762,560 | 66.96 | -- | 0.13 | 0.25 | 108.20 | -- | -- |
| WQ0000948 | Town of Jackson - Spray/Res &Bus | 52,053,354 | 7.68 | -- | 0.57 | -- | 16.26 | -- | -- |
| WQ0000957 | Valley Protein Inc-Wadesboro | 41,519,362 | 86.75 | -- | 18.59 | -- | 104.28 | -- | 0.99 |
| WQ0000961 | R J Reynolds Tobacco Company | 202,028 | 10.41 | -- | -- | 13.53 | 15.18 | -- | 4.03 |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | 1,736,375 | 1.19 | -- | 0.31 | -- | 47.00 | -- | -- |
| WQ0001173 | Prestage Foods, Inc. | 160,674,841 | 25.53 | -- | 4.36 | -- | 34.35 | -- | 12.84 |
| WQ0001189 | Rollingview Marina | 72,133 | 21.05 | -- | -- | 3.67 | 22.44 | -- | 3.67 |
| WQ0001203 | Ponderosa Subdivision | 2,893,524 | 27.98 | -- | -- | -- | -- | -- | -- |
| WQ0001284 | Town of Conway WWTP | 43,757,782 | 6.51 | -- | -- | 0.16 | 15.24 | -- | -- |
| WQ0001536 | Perdue Grain and Oilseed, LLC | 14,102,709 | 3.57 | -- | -- | -- | -- | -- | -- |
| WQ0001602 | Town of Winton WWTP | 111,272,444 | 13.73 | -- | 0.09 | -- | 28.67 | -- | -- |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0001755 | Townsends Processing Facility | 40,080,253 | 16.80 | -- | 0.05 | -- | 33.69 | -- | 5.81 |
| WQ0001817 | Albermarle Plantation | 28,987,561 | 0.00 | -- | -- | 0.01 | 5.53 | -- | 1.19 |
| WQ0001868 | Severn Town WWTF | 15,955,668 | 11.11 | 0.07 | 0.06 | -- | 163.90 | -- | 20.47 |
| WQ0002001 | Waters Edge POA | 2,847,398 | 3.79 | -- | -- | -- | -- | -- | -- |
| WQ0002004 | Bass Farms Inc. | 773,707 | 83.68 | -- | -- | 0.26 | 173.55 | -- | 17.51 |
| WQ0002005 | Rose Hill Fresh/IQF Chicken Processing Plant | 108,659,066 | 45.71 | -- | -- | 0.83 | 85.51 | -- | 11.32 |
| WQ0002012 | Georgia-Pacific Chemicals LLC | 5,389,179 | 1.20 | 0.08 | 1.07 | -- | 4.50 | -- | 0.20 |
| WQ0002015 | Oak Hill Fellowship Center | 74,672 | 1.32 | 0.04 | -- | 0.10 | 7.66 | -- | 1.02 |
| WQ0002052 | Milliken Incorporated-Golden Valley | 4,627,022 | 2.05 | -- | 0.34 | -- | 14.64 | -- | 1.33 |
| WQ0002056 | Gatlin-Ramsey Mobile Home Park WWTF | 3,407,200 | 0.20 | -- | 1.63 | -- | 4.30 | -- | 1.40 |
| WQ0002075 | Enterprise Rendering Company WWTF | 2,887,153 | 129.00 | -- | -- | 1.76 | 342.00 | 341.00 | 48.25 |
| WQ0002096 | Pinewood Manor Rest Home | 2,963,421 | 8.40 | -- | -- | 0.19 | 23.90 | -- | 3.73 |
| WQ0002121 | Sandling Beach - Falls Lake SRA | 658,899 | 3.74 | 0.02 | 24.18 | 0.02 | 11.70 | -- | -- |
| WQ0002161 | Carolina Friends School | 308,473 | 35.95 | -- | -- | 26.50 | 86.45 | -- | 15.30 |
| WQ0002204 | Morrison Correctional Institution | 24,797,142 | 15.26 | 0.17 | 0.42 | -- | 35.31 | -- | 5.51 |
| WQ0002410 | Key Gilbert-Key Packing | 181,488 | 164.00 | 0.03 | 0.02 | -- | 157.00 | -- | 12.00 |
| WQ0002428 | Townsends Hatchery | 1,577,550 | 0.54 | -- | 14.84 | -- | -- | -- | -- |
| WQ0002503 | Frit Car - Bridgeton Facility | 18,818 | 9.83 | -- | -- | -- | -- | -- | 5,440.00 |
| WQ0002519 | Holiday Island POA | 1,265,544 | 3.82 | -- | -- | -- | -- | 4.12 | 4.13 |
| WQ0002520 | Town of Bath WRF | 10,497,486 | 11.51 | -- | 1.81 | -- | 16.39 | -- | -- |
| WQ0002560 | Town of Baily WWTP | 24,056,807 | 11.65 | -- | -- | -- | -- | -- | -- |
| WQ0002571 | Village Oak Mobile Home Park WWTF | 1,383,085 | 4.85 | -- | -- | 1.28 | 11.49 | -- | 1.47 |
| WQ0002621 | Town of Salemburg | 16,478,361 | 22.74 | -- | -- | 0.38 | 38.84 | -- | -- |
| WQ0002638 | Town of Angier | 12,120,481 | 3.48 | -- | 0.04 | -- | -- | -- | 1.23 |
| WQ0002648 | Seagrove-Ulah Metropolitan Water District | 4,094,866 | 11.61 | -- | -- | 34.90 | 15.43 | -- | 4.55 |
| WQ0002665 | Jordan Lake SRA - Parkers Creek | 1,890,427 | 0.38 | -- | -- | 0.07 | 2.03 | 2.10 | -- |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | 34,761,765 | 41.63 | -- | -- | 0.55 | 41.74 | -- | 1.04 |
| WQ0002715 | Perdue Farms Inc-Eagle Springs | 1,498,156 | 32.95 | -- | 25.53 | -- | 43.25 | -- | 5.11 |
| WQ0002766 | Town of Gibson WWTP | 29,701,521 | 2.91 | -- | -- | 0.48 | 3.74 | -- | -- |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0002806 | Novozymes North America Inc. | 228,907,750 | 16.27 | -- | 22.38 | -- | 33.97 | -- | 69.92 |
| WQ0002838 | Deerhurst Mobile Home Park | 12,638,206 | 14.67 | -- | 0.02 | -- | 24.83 | -- | -- |
| WQ0002844 | Triangle Brick Company - South Plant | 31,567 | 0.02 | -- | -- | -- | -- | -- | -- |
| WQ0002848 | Ball's Landromat | 51,430 | -- | -- | -- | -- | -- | -- | -- |
| WQ0002857 | Matkins Meat Processors Inc. | 39,102 | 8.94 | -- | -- | -- | -- | -- | -- |
| WQ0002927 | Domtar Paper Co. - Bonsal Chip Mill | 52,690 | 20.03 | -- | 23.33 | -- | 19.93 | -- | -- |
| WQ0002994 | Carolina Lakes WWTF | 94,195,244 | 30.46 | -- | -- | 0.06 | 46.83 | -- | -- |
| WQ0003090 | Town of Liberty | 132,091,914 | 9.15 | -- | -- | 0.14 | 17.86 | -- | 2.03 |
| WQ0003298 | Leesville Road Baptist Church | 10,319 | 0.19 | -- | -- | -- | -- | -- | -- |
| WQ0003299 | Town of Seaboard | 29,549,755 | 29.32 | -- | -- | 0.15 | 8.86 | -- | -- |
| WQ0003396 | Uniboard USA LLC | 1,283,064 | 52.00 | -- | 0.23 | -- | 131.50 | -- | -- |
| WQ0003405 | Town of Elm City | 53,588,722 | 7.48 | -- | 0.09 | -- | 16.94 | -- | -- |
| WQ0003418 | Triangle Brick Co. | 2,082,375 | -- | -- | -- | -- | -- | -- | -- |
| WQ0003626 | Maxton Plant and Silgan Can Company | 765,108,237 | 2.26 | -- | 0.33 | -- | 30.23 | -- | 5.33 |
| WQ0003661 | Town of Faison | 55,073,622 | 5.54 | -- | 0.25 | -- | 11.65 | -- | -- |
| WQ0003687 | Gold Hill Airpk HOA | 310,716 | 3.50 | -- | -- | -- | -- | -- | -- |
| WQ0003717 | Parks Family Meats WWTF | 15,206 | 32.13 | -- | 20.07 | -- | 127.63 | -- | -- |
| WQ0003823 | Bruce Foods - Wilson, NC Processing Facility | 16,711,527 | 20.53 | -- | -- | 5.53 | 48.34 | -- | -- |
| WQ0003885 | Town of Ahoskie | 242,679,633 | 4.73 | -- | 0.85 | -- | 15.67 | -- | 3.35 |
| WQ0004075 | Pender Packing WWTF | 362,007 | 6.83 | 0.10 | 0.02 | -- | 22.30 | -- | 22.30 |
| WQ0004115 | Champion Hills | 5,362,008 | 0.34 | -- | 2.30 | -- | -- | -- | -- |
| WQ0004122 | Jordan Lake SRA - Poplar Point | 2,719,800 | 0.35 | -- | -- | 0.19 | 5.00 | -- | 1.78 |
| WQ0004240 | Bogue Airfield WWTF | 3,388,312 | 1.00 | -- | 0.05 | -- | 2.17 | -- | 1.70 |
| WQ0004268 | Allens, Inc. - Plant #7 | 30,321,152 | 11.86 | 0.04 | 0.23 | -- | 32.33 | -- | 10.05 |
| WQ0004270 | AB Carter Incorporated-A B Carter | 225,924 | 0.34 | -- | -- | -- | -- | -- | -- |
| WQ0004327 | Triangle Brick Co-Merry Oaks | 276,974 | 0.91 | -- | -- | 0.04 | 31.87 | -- | 4.61 |
| WQ0004332 | Town of Edenton | 241,453,538 | 0.06 | -- | -- | -- | -- | -- | -- |
| WQ0004410 | Granville Family Park Incorporated | 16,937,920 | 4.32 | -- | -- | 16.34 | 21.93 | -- | 4.49 |
| WQ0004438 | S T Wooten Corporation - New Bern | 139,895 | 0.58 | -- | 29.65 | -- | 1.66 | -- | -- |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0004502 | Hillsborough Church Of Christ | 39,347 | 1.41 | -- | -- | 8.58 | 4.24 | -- | 2.08 |
| WQ0004508 | Emerson Waldorf School | 385,591 | 1.29 | -- | -- | 15.53 | 5.13 | -- | 2.34 |
| WQ0004696 | Carolina Village | 6,657,428 | 0.34 | -- | 13.43 | 18.99 | 2.92 | 2.03 | -- |
| WQ0004750 | Person Co BOE - Oak Lane Elementary | 464,881 | 7.86 | -- | -- | 15.14 | -- | 17.10 | 1.66 |
| WQ0004751 | Colonial Pipeline Co-Char Del | 33,807 | -- | -- | -- | -- | -- | -- | -- |
| WQ0004797 | Clement Pappas NC, Inc | 19,469,050 | 0.07 | -- | -- | 0.71 | 85.73 | -- | 7.23 |
| WQ0004888 | Chatham Co BOE - Silk Hope Elementary | 338,723 | 9.42 | -- | -- | -- | -- | -- | -- |
| WQ0004910 | Town of Woodland WWTF | 20,184,459 | 13.19 | -- | 0.06 | -- | 25.37 | -- | -- |
| WQ0004967 | Alljuice Food & Beverage | 4,885,490 | 16.98 | -- | 2.01 | -- | 63.98 | -- | -- |
| WQ0004972 | Forest Lake Preserve | 1,265,933 | 17.13 | -- | -- | 1.03 | 31.40 | -- | 10.33 |
| WQ0004988 | Jordan Lake SRA – Seaforth Day Use Area | 423,460 | 24.67 | -- | -- | 0.12 | 31.33 | 31.46 | -- |
| WQ0005134 | Wake Co Wildlife Club-Coley | 23,192 | -- | -- | -- | -- | -- | -- | -- |
| WQ0005150 | North End Elementary | 261,659 | 22.30 | -- | -- | -- | -- | -- | 6.52 |
| WQ0005192 | Murfreesboro Hatchery #5 | 516,882 | -- | -- | -- | -- | -- | -- | -- |
| WQ0005233 | Enlisted Mens Barracks – Atlantic Airfield | 123,280 | 1.00 | -- | 0.69 | -- | 1.49 | -- | 0.43 |
| WQ0005247 | Rollingview State Recreation Area | 1,918,025 | 2.19 | 0.02 | 0.02 | 0.02 | 6.18 | -- | 3.02 |
| WQ0005279 | Bingham Woods Mobile Home Park | 307,984 | 9.15 | -- | -- | 0.61 | 14.65 | -- | 1.02 |
| WQ0005426 | Holly Point Recreation Area | 600,007 | 0.50 | -- | -- | -- | -- | -- | -- |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | 2,978,852 | 30.67 | -- | -- | 1.47 | 626.67 | -- | 32.00 |
| WQ0005563 | Morrison Family Care Homes, Inc. | 192,488 | 0.83 | -- | -- | 12.67 | 1.47 | -- | 2.33 |
| WQ0005614 | Dunbar Foods Corporation | 9,038,874 | 6.73 | 0.09 | 2.20 | 2.30 | 220.00 | -- | 36.50 |
| WQ0005681 | Staley Hatchery & Feed Mill | 3,009,021 | 2.26 | -- | -- | -- | -- | -- | -- |
| WQ0005721 | Town of Pink Hill | 47,174,109 | 14.84 | -- | 0.44 | -- | 17.31 | -- | -- |
| WQ0005910 | Avoca Farms - Merry Hill | 6,791,776 | 0.31 | -- | -- | 0.10 | 21.19 | -- | 3.27 |
| WQ0006058 | Perdue Farms Incorporated - Hatchery#9 | 2,431,666 | 41.73 | -- | 0.04 | 0.08 | 49.43 | -- | -- |
| WQ0006131 | Hyde Co BOE-Mattamuskeet Imp | 1,945,970 | 7.46 | -- | -- | 0.32 | 22.42 | -- | 5.52 |
| WQ0006317 | Greensboro Junction | 46,580 | 22.75 | -- | -- | 3.33 | 116.00 | -- | 0.67 |
| WQ0006785 | Town of Murfreesboro | 143,888,893 | 4.18 | -- | 0.34 | -- | 12.07 | -- | 1.89 |
| WQ0006932 | Professional Laboratory & Research Services | 1,632,980 | 38.00 | -- | 0.17 | -- | -- | -- | -- |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0006941 | Stoney Creek Elementary | 363,455 | 31.37 | -- | 1.32 | -- | 30.70 | -- | 3.37 |
| WQ0006946 | Reed Gold Mine | 175,292 | 29.00 | -- | -- | 0.05 | 17.00 | -- | 1.70 |
| WQ0007026 | Sanford Health and Rehabilitation | 2,226,651 | 4.80 | 0.02 | 0.24 | -- | 6.47 | -- | 3.23 |
| WQ0007102 | Wake Co BOE-East Wake Middle | 587,334 | 3.45 | -- | -- | 1.13 | 7.39 | -- | 1.10 |
| WQ0007143 | YMCA/Raleigh-Sea Gull Camp | 4,234,570 | 1.72 | -- | 0.10 | -- | 5.63 | -- | -- |
| WQ0007144 | YMCA/Raleigh-Seafarer Camp | 9,370,184 | 1.13 | -- | 0.11 | -- | 5.39 | -- | -- |
| WQ0007217 | Piney Island (BT-11) WWTF | 129,819 | 7.46 | -- | 21.42 | -- | 2.04 | -- | -- |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | 5,401,956 | 312.58 | -- | -- | 0.39 | 305.96 | 347.20 | 10.02 |
| WQ0007283 | Town of Pollocksville | 23,342,992 | 11.23 | -- | -- | 4.29 | 22.20 | -- | 2.92 |
| WQ0007345 | Ready Mixed Concrete Company | 7,744 | 0.20 | -- | 1.10 | -- | 0.86 | -- | -- |
| WQ0007396 | Prestage Farms Hatchery | 6,512,955 | 9.40 | 0.03 | 0.15 | -- | 18.13 | -- | 3.30 |
| WQ0007507 | Pasquotank Co-Industrial Park | 46,511,935 | 16.99 | -- | -- | -- | -- | -- | -- |
| WQ0007521 | Goldsboro Hog Farms,Inc. – Livestock Truckwash Station | 2,540,343 | -- | -- | -- | -- | -- | -- | -- |
| WQ0008489 | NC Prison Facility at Piney Woods | 32,803,886 | 3.24 | -- | 0.22 | -- | 12.62 | -- | -- |
| WQ0008500 | C. G. White Elementary School | 442,430 | 11.64 | -- | -- | -- | -- | -- | -- |
| WQ0009098 | James Rest Home | 709,487 | 7.69 | -- | -- | 20.10 | 10.51 | -- | 4.34 |
| WQ0009267 | Jacksonville WWTF | 1,457,961,663 | 11.26 | 1.49 | 2.22 | -- | 16.52 | -- | 3.40 |
| WQ0009589 | Chatham Co-Jordan Lake WTP | 40,275 | 21.50 | -- | -- | 16.00 | 26.50 | -- | 3.50 |
| WQ0009826 | Dobson Hatchery Spray Irrigation System | 1,540,055 | 25.80 | -- | -- | -- | -- | -- | -- |
| WQ0009849 | Badin Lake Recreation Area | 271,679 | 7.52 | -- | -- | 0.28 | 12.77 | -- | 2.93 |
| WQ0009946 | Askewville Elementary Surface Irrigation | 291,653 | 0.58 | -- | -- | 0.05 | 6.30 | -- | -- |
| WQ0010034 | Acre Station Meat Farm-Huettmann | 2,328,078 | 0.21 | -- | -- | -- | 6.97 | -- | -- |
| WQ0010657 | Badin Shores Resort | 7,804,305 | 10.80 | -- | -- | -- | -- | -- | -- |
| WQ0010878 | The Spiritual Center of America - West Campus | 4,235,576 | 6.65 | -- | -- | 11.70 | 9.51 | -- | 4.68 |
| WQ0011119 | Town of Colerain WWTP | 19,637,844 | 1.38 | -- | -- | 0.74 | 18.39 | -- | 2.77 |
| WQ0011360 | Murphy-Brown, LLC - Tarheel Trailer Sanitation Facility | 4,028,197 | -- | -- | -- | -- | -- | -- | -- |
| WQ0011655 | E Carolina Council/Boy Scout | 597,495 | 5.64 | -- | -- | 0.53 | 10.51 | -- | 3.22 |
| WQ0011928 | Olde Sycamore WWTP | 15,735,849 | 0.08 | -- | 36.43 | -- | -- | -- | -- |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0012690 | Mt Mitchell State Park | 31,404 | 70.45 | -- | -- | -- | -- | -- | -- |
| WQ0012694 | The Spiritual Center of America - East Campus | 340,018 | 1.01 | -- | -- | 12.87 | 2.04 | -- | 2.45 |
| WQ0012696 | Pamlico River Ferry Terminal | 86,826 | 0.11 | -- | -- | 35.67 | 0.74 | -- | 5.03 |
| WQ0012709 | Wells Pork & Beef Products WWTF | 275,535 | 194.25 | -- | -- | 0.13 | 203.67 | -- | -- |
| WQ0012796 | Lakeview Packing Company Inc | 1,951,055 | 2.94 | -- | 21.37 | -- | 45.21 | -- | 15.41 |
| WQ0012901 | Bailey Foods, LLC | 765,229 | 169.00 | -- | -- | 0.81 | 261.50 | -- | 27.44 |
| WQ0012948 | Pisgah Center for Wildlife Education | 872,052 | 1.86 | -- | -- | 39.00 | 4.05 | -- | 4.75 |
| WQ0013181 | South Topsail Elementary School WWTF | 363,581 | 1.54 | -- | -- | -- | -- | -- | -- |
| WQ0013348 | Bay River MSD – Oriental and Bayboro | 156,637,227 | -- | -- | -- | -- | -- | -- | -- |
| WQ0013348 | Bay River MSD - Oriental | -- | 1.09 | -- | -- | 3.94 | 2.48 | 6.23 | -- |
| WQ0013348 | Bay River MSD - Bayboro | -- | 7.36 | -- | -- | 1.92 | 14.21 | -- | 6.66 |
| WQ0013502 | Tower Apartments | 81,175 | 0.01 | -- | 6.66 | 12.00 | 0.95 | -- | 1.10 |
| WQ0013808 | Summerfield Shopping Center | 1,160,954 | 13.04 | -- | 1.09 | -- | 16.67 | -- | -- |
| WQ0013921 | Rainbow Trailer Wash | 703,760 | 121.00 | -- | -- | 0.12 | 128.00 | -- | 73.30 |
| WQ0013948 | Frame Brick Inc-Rowan | 24,678 | 0.10 | -- | 2.40 | -- | 0.77 | -- | -- |
| WQ0014046 | Town of Stovall | 9,506,284 | 1.82 | -- | 0.50 | -- | 12.15 | -- | -- |
| WQ0014091 | White Oak Truck Wash | 5,980,870 | -- | -- | -- | -- | -- | -- | -- |
| WQ0014247 | Register Truck & Trailer Wash | 3,288,680 | -- | -- | -- | -- | -- | -- | -- |
| WQ0014391 | Builders First Source | 777,199 | 2.86 | -- | 51.65 | -- | 3.40 | 55.41 | 2.83 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | 49,503,927 | 0.20 | -- | 33.33 | -- | 2.49 | -- | -- |
| WQ0014756 | Trinity American Corp-Randolph | 115,490 | 28.60 | -- | -- | 51.20 | 32.20 | -- | 0.35 |
| WQ0014785 | Sampson Co BOE - Midway Middle | 304,044 | 15.57 | -- | 0.92 | -- | 47.07 | -- | -- |
| WQ0014928 | Highway 97 Truckwash | 489,042 | 58.97 | -- | -- | -- | -- | -- | -- |
| WQ0015010 | TDM Truck Wash | 173,787 | -- | -- | -- | -- | -- | -- | -- |
| WQ0015030 | L L Parks Livestock Inc - Delway Site | 6,238,339 | -- | -- | -- | -- | -- | -- | -- |
| WQ0015053 | Moyock Commons | 3,304,387 | 1.02 | -- | 13.60 | -- | -- | -- | -- |
| WQ0015393 | Lee's Long Term Care Facility | 1,581,194 | 8.17 | -- | 54.63 | -- | 12.40 | 58.75 | -- |
| WQ0015491 | Caraway Speedway | 33,412 | 9.95 | -- | -- | -- | -- | -- | -- |
| WQ0015515 | Bear Pen Village | 537,639 | 3.30 | -- | -- | 18.18 | 4.35 | -- | 3.46 |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0015587 | Harpers Crossroads Seafood Restaurant | 114,700 | -- | -- | -- | -- | -- | -- | -- |
| WQ0016053 | Prestage Farms Inc-Truck Wash | 4,243,367 | -- | -- | -- | -- | -- | 73.38 | 33.73 |
| WQ0016165 | City of Lexington Conjunctive-Use Wastewater Surface Irrigation System | 3,207,421 | 0.61 | -- | -- | 6.05 | 1.71 | -- | 0.84 |
| WQ0016167 | Southern Produce Washwater System | 1,584,735 | -- | -- | -- | -- | -- | -- | -- |
| WQ0016376 | S & J Villari Livestock Processing Facility | 14,603,150 | 203.33 | 0.23 | 0.11 | -- | 230.17 | -- | 26.14 |
| WQ0017530 | Highlands Cove | 2,152,133 | 2.41 | -- | 3.43 | -- | -- | -- | -- |
| WQ0017625 | Engelhard Sanitary District | 10,114,270 | 3.89 | -- | 0.29 | -- | 7.69 | -- | -- |
| WQ0017824 | Uwharrie Middle School | 690,198 | 13.60 | -- | -- | 38.57 | 12.87 | -- | 6.58 |
| WQ0017912 | Central NC BSA-Camp Barnhardt | 78,204 | 2.00 | -- | -- | 0.02 | 7.30 | -- | 1.90 |
| WQ0018173 | Montessori School Of Raleigh | 100,818 | 4.10 | -- | -- | 15.40 | 11.70 | -- | 4.47 |
| WQ0018497 | Union Co BOE-Fairview Elementary | 1,312,060 | 7.83 | -- | -- | 15.00 | 4.07 | 17.00 | 4.53 |
| WQ0018708 | Lake Creek Corp - Baytree Lakes | 13,379,442 | 1.99 | -- | 2.65 | -- | 7.11 | 9.79 | -- |
| WQ0019095 | Colfax Furniture | 33,147 | 39.20 | -- | -- | 41.00 | 44.20 | -- | 7.39 |
| WQ0019573 | Rogers Grove Baptist Church | 19,345 | -- | -- | -- | -- | -- | -- | -- |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | 35,967,109 | 0.15 | -- | 0.16 | -- | 12.61 | -- | -- |
| WQ0019704 | Old Chatham Golf Club | 2,140,925 | 0.25 | -- | -- | 1.15 | 1.22 | -- | 0.70 |
| WQ0019754 | Luck Stone - Pittsboro Plant | 69,520 | -- | -- | -- | -- | 13.00 | -- | -- |
| WQ0019782 | YMCA Camp Weaver | 576,578 | 5.66 | -- | -- | 8.32 | 6.98 | -- | 5.27 |
| WQ0019907 | Holly Ridge WWTF | 41,837,909 | 3.61 | -- | 0.42 | -- | 7.89 | -- | 3.35 |
| WQ0020543 | KOA Campground WWTF | 210,641 | 22.82 | -- | 0.24 | -- | -- | -- | -- |
| WQ0020881 | Lake Norman State Park Swim Beach | 555,794 | 0.88 | -- | -- | 1.39 | 2.52 | -- | 2.83 |
| WQ0021204 | N. Chatham Vol. Fire Department - Hwy 64 | 15,763 | 21.00 | -- | -- | 45.00 | 23.00 | -- | 7.80 |
| WQ0021311 | Bladenboro Wastewater Treatment Plant | 5,680,275 | 0.16 | 0.03 | -- | 7.59 | 0.50 | -- | 0.65 |
| WQ0021352 | Westmoore Family Restauant | 643,573 | 2.87 | -- | -- | 0.36 | 5.37 | -- | 10.60 |
| WQ0021950 | Clegg's Chapel Drip WWTS | 113,551 | 1.93 | -- | -- | 8.10 | 2.37 | -- | 0.48 |
| WQ0022384 | Contentnea Sewerage District WWTP | 1,387,508 | 3.98 | -- | -- | 5.44 | 4.40 | -- | 2.86 |
| WQ0022523 | H&T Truck Wash | 461,210 | -- | -- | -- | -- | -- | -- | -- |
| WQ0022785 | Lattisville Grove Baptist Church | 137,249 | 4.11 | -- | -- | 8.30 | 5.55 | -- | 2.20 |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0023203 | Rich Square WWTP | 323,527 | 0.59 | -- | 2.03 | -- | -- | -- | -- |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | 2,818,520 | 47.90 | -- | -- | 0.08 | 52.50 | 52.70 | -- |
| WQ0023511 | Woodland Heights Elementary School | 382,941 | 0.60 | -- | -- | 22.83 | 2.44 | -- | 4.50 |
| WQ0023634 | Waterside Villages | 6,867,903 | 0.54 | -- | 8.24 | 8.35 | 1.66 | 9.79 | -- |
| WQ0023896 | UNC-CH Bingham Facility | 38,570 | -- | -- | -- | -- | -- | -- | -- |
| WQ0024003 | Harvey Pt Defense Fac | 4,867,332 | 1.70 | -- | -- | -- | -- | 28.39 | 5.92 |
| WQ0024053 | CTS Rocky Point Facility | 82,799 | 65.67 | -- | -- | 49.23 | 67.00 | -- | 16.00 |
| WQ0024461 | White Cross Fire Department | 74,498 | 1.57 | -- | -- | 15.67 | 2.87 | -- | 1.97 |
| WQ0024508 | Carolina Research Center | 438,813 | -- | -- | -- | -- | -- | -- | -- |
| WQ0024577 | Sutton's Rest Home | 53,244 | 10.03 | -- | -- | 1.29 | -- | -- | 4.81 |
| WQ0028562 | North Harnett Regional WWTP | 3,397,544 | 1.00 | -- | 2.77 | -- | 0.99 | -- | 1.28 |
| WQ0028749 | Louisiana-Pacific OSB Facility | 60,418 | 29.93 | -- | -- | 8.32 | 33.00 | -- | 4.97 |
| WQ0028860 | American Soil and Mulch | 23,516 | 12.62 | -- | -- | 80.57 | 12.00 | -- | 10.46 |
| WQ0029168 | Camp Durant WWTF | 1,773,482 | 9.76 | -- | -- | 0.02 | 15.11 | -- | 1.79 |
| WQ0029195 | Bradford Crossing Shopping Center | 352,148 | 10.10 | -- | -- | 24.35 | 14.55 | -- | 12.80 |
| WQ0029635 | Sunset Pointe Residential Subdivision | 612,030 | 8.10 | -- | 55.50 | -- | 50.20 | -- | 9.60 |
| WQ0030190 | Laurinburg Truckwash | 6,595,227 | -- | -- | -- | -- | -- | -- | -- |
| WQ0030245 | Rosman WWTP | 2,647,320 | 0.68 | -- | 2.27 | 2.31 | 1.51 | -- | 1.55 |
| WQ0030304 | Dogwood Veterinary Hospital | 68,904 | 2.10 | -- | -- | 29.40 | 2.53 | -- | 3.28 |
| WQ0031070 | Cape Point RV Park WWTF | 292,339 | 0.45 | -- | 19.01 | -- | -- | 5.05 | 5.15 |
| WQ0031717 | Talley Pointe | 23,095 | -- | -- | -- | -- | -- | -- | -- |
| WQ0032016 | Rose Hill Plantation | 109,168 | 0.42 | -- | 11.37 | -- | 1.89 | -- | -- |
| WQ0032930 | New Topsail School Complex WWTF | 2,162,344 | 16.48 | 2.17 | 3.84 | -- | -- | 12.21 | 3.90 |
| WQ0033677 | Morganton Hatchery | 2,176,309 | 0.86 | -- | 0.91 | -- | 25.87 | -- | -- |
| WQ0033804 | Deerborne Cottages | 606 | 34.70 | -- | 0.10 | -- | 31.10 | -- | 3.00 |
| High-Rate Infiltration | | | | | | | | | |
| WQ0000165 | Sands Villas WWTF | 3,600,182 | 0.73 | -- | -- | 4.33 | 3.36 | -- | 6.72 |
| WQ0000185 | Ocean Sands | 51,563,139 | 0.77 | -- | 19.73 | -- | -- | -- | -- |
| WQ0000224 | Point Emerald Villas WWTF | 3,537,969 | 0.37 | -- | 25.15 | -- | -- | -- | -- |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0000889 | PCS Phosphate Co. | 4,262,414 | 0.60 | -- | 35.21 | -- | -- | -- | -- |
| WQ0000910 | The Village at Nags Head | 5,818,484 | 0.60 | -- | 4.71 | -- | -- | - | -- |
| WQ0000986 | Island Beach & Racquet Club Condominiums/ Sheraton Atlantic Beach Oceanfront Hotel | 368,596 | 0.11 | -- | 6.94 | 7.17 | 17.47 | -- | -- |
| WQ0002042 | Clarion Hotel-Nags Head Beach | 1,091,839 | 0.70 | -- | 4.78 | -- | -- | -- | -- |
| WQ0002128 | Pebble Beach Condos WWTF | 5,628,061 | 0.41 | -- | | 14.45 | 32.54 | 16.62 | -- |
| WQ0002314 | Windward Dunes WWTF | 1,090,446 | 0.65 | -- | 4.12 | - | -- | -- | -- |
| WQ0002829 | Kill Devil Hills WWTP | 57,463,884 | 0.84 | -- | 15.32 | -- | -- | -- | -- |
| WQ0003044 | Dunescape Villas WWTF | 2,519,511 | 1.31 | -- | 12.96 | 19.49 | 2.08 | -- | -- |
| WQ0003067 | Ocean Bay Villas & Ocean Glen Condos | 681,369 | 0.55 | -- | 12.64 | -- | -- | 14.97 | -- |
| WQ0003271 | Hestron Park WWTF | 15,079,191 | 1.79 | -- | 13.98 | -- | -- | -- | -- |
| WQ0003437 | Queens Court WWTF | 1,321,358 | 2.36 | -- | 16.87 | -- | -- | -- | -- |
| WQ0004059 | Atlantic Station WWTF | 7,731,656 | 0.37 | -- | 23.42 | -- | -- | -- | -- |
| WQ0004230 | A Place at the Beach III WWTP | 7,188,289 | 0.24 | -- | -- | 5.71 | 1.18 | 7.34 | |
| WQ0005173 | Cape Royall Dolphin WWTF | 2,789,342 | 0.46 | -- | 34.33 | -- | -- | -- | -- |
| WQ0005849 | Pluris North Topsail WWTF | 148,680,815 | 2.84 | -- | 0.03 | -- | -- | -- | 0.04 |
| WQ0006254 | Corolla Light WWTP #1 | 31,214,382 | 0.64 | -- | 3.03 | -- | -- | -- | 0.87 |
| WQ0006863 | Genesis Condos WWTF | 1,298,619 | 0.78 | -- | -- | 15.34 | 6.98 | 21.26 | -- |
| WQ0007103 | Sound Of The Sea Condominiums WWTF | 2,028,633 | 0.84 | -- | -- | 7.21 | 2.97 | 10.35 | -- |
| WQ0007256 | Baycliff | 2,788,058 | 0.37 | -- | - | 0.27 | -- | -- | -- |
| WQ0009772 | Monteray Shores | 2,690,179 | 0.26 | -- | 1.10 | -- | -- | -- | -- |
| WQ0011313 | Peppertree Resort WWTF | 9,712,351 | 7.63 | -- | 20.64 | 21.23 | 12.65 | -- | -- |
| WQ0013027 | Sea Isle Plantation North WWTF | 1,433,965 | 0.16 | -- | -- | 37.58 | 5.55 | -- | -- |
| WQ0014550 | Camp Don Lee-Arapahoe WWTP | 1,998,228 | 3.89 | -- | 0.60 | | | -- | -- |
| WQ0018420 | Ocean Club WWTF | 10,632,541 | 7.21 | -- | -- | 12.81 | 11.84 | -- | -- |
| WQ0018992 | Southwinds Condos WWTF | 4,834,276 | 0.48 | -- | 12.56 | -- | -- | -- | -- |
| WQ0020084 | The Villas Condominiums | 1,610,361 | 0.38 | -- | 5.07 | -- | -- | -- | -- |
| WQ0023693 | West Brunswick Regional WWTF | 250,713,896 | 1.88 | -- | 4.31 | -- | -- | 6.34 | 1.43 |
| WQ0030088 | Hampstead Land Group LLC – Majestic Oaks | 1,737,235 | 0.24 | | 26.72 | -- | -- | 34.06 | 5.41 |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| Reclaimed Water Systems | | | | | | | | | |
| WQ0000088 | Governors Club Golf Course | 38,950,870 | 0.49 | 0.07 | 22.78 | -- | -- | -- | -- |
| WQ0001664 | Belvedere Plantation WWTF | 25,336,306 | 0.42 | -- | 28.63 | -- | -- | -- | -- |
| WQ0002284 | Kinnakeet Shores | 63,487 | 0.14 | -- | 3.31 | -- | -- | -- | -- |
| WQ0003765 | New Bern Seven Water Reclamation Facility | 119,643,404 | 1.68 | -- | 28.79 | -- | -- | -- | -- |
| WQ0004479 | Handy Sanitary District - Uwharrie Pt | 9,190,124 | 0.06 | -- | -- | -- | -- | -- | -- |
| WQ0004823 | Pine Island Currituck Club | 63,246,133 | 0.22 | -- | 15.17 | -- | -- | -- | -- |
| WQ0005790 | Oak Island WWTP | 15,153,424 | 0.09 | -- | 31.69 | -- | 2.28 | -- | -- |
| WQ0006085 | Town of Ocean Isle Beach WWTF | 131,712,987 | 0.94 | -- | 3.84 | -- | -- | -- | -- |
| WQ007569 | Bandywine Bay WWTF | 35,401,478 | 1.18 | -- | 18.59 | -- | -- | -- | -- |
| WQ0011614 | Ocean Ridge Plantation WWTF | 14,625,841 | 2.82 | -- | 29.63 | -- | -- | -- | -- |
| WQ0011777 | Jordan Lake Business Park Assoc. | 35,268 | 0.03 | -- | -- | -- | -- | -- | -- |
| WQ0012748 | Sea Trails WWTF | 71,406,267 | 1.64 | -- | 15.98 | -- | -- | -- | -- |
| WQ0012821 | US Marine Corp Golf Course | 2,005,344 | 1.04 | -- | -- | -- | -- | -- | -- |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | 103,098,037 | 0.59 | -- | 1.21 | -- | -- | 3.81 | 2.09 |
| WQ0013252 | CMUD Mallard Creek Reclamation | 59,694,324 | 0.13 | -- | -- | -- | -- | -- | -- |
| WQ0013398 | Sandpiper Bay WWTF | 26,845,406 | 2.53 | -- | 6.96 | -- | 1.95 | -- | -- |
| WQ0013676 | Beacons Reach WWTF | 15,983,013 | 0.18 | -- | -- | 6.22 | 1.87 | 8.09 | -- |
| WQ0014306 | Eagle Creek | 19,430,051 | 0.34 | -- | 28.60 | -- | -- | -- | -- |
| WQ0015052 | Village at Ocean Hill | 11,103,035 | 0.87 | -- | 24.91 | -- | -- | -- | -- |
| WQ0015929 | High Vista Falls WWTS | 3,927,840 | 0.98 | -- | 2.85 | -- | -- | -- | -- |
| WQ0015931 | The Village at the Point | 2,839,035 | 0.27 | -- | 8.38 | -- | -- | -- | -- |
| WQ0016222 | City of Raleigh – PUD | 2,896,020 | 0.04 | -- | 1.33 | -- | -- | -- | -- |
| WQ0017224 | Ginguite Woods | 2,312,780 | 1.29 | -- | 14.68 | -- | -- | -- | -- |
| WQ0017635 | Martin Marietta Quarry & Mackilwean Turf Farm | 17,587,967 | 0.50 | -- | 3.99 | -- | 1.33 | -- | 0.59 |
| WQ0017791 | Goldsboro WRF | 6,920 | 0.04 | -- | -- | 2.40 | -- | -- | -- |
| WQ0017923 | North Cary WRF | 186,470,911 | 0.04 | -- | -- | -- | -- | -- | -- |
| WQ0018146 | The Preserve at Jordan Lake | 22,090,555 | 0.15 | -- | 21.08 | -- | -- | -- | -- |

x

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0018489 | South Cary WRF | 132,283,000 | 0.57 | -- | -- | -- | -- | -- | -- |
| WQ0018709 | Wilson Reclaimed Water Distribution System | 36,687,667 | 0.37 | -- | 1.67 | -- | 1.75 | -- | -- |
| WQ0018755 | Castle Bay WWTF | 9,304,379 | 0.20 | -- | 46.61 | -- | -- | -- | -- |
| WQ0019179 | City of Washington | 22,640 | 0.05 | -- | 0.67 | -- | -- | -- | -- |
| WQ0019229 | Town of Warsaw RWUS | 35,301 | 0.18 | -- | 29.15 | -- | -- | -- | -- |
| WQ0019331 | NC Aquarium at Pine Knoll Shores | 1,850,046 | 2.05 | -- | 19.91 | -- | -- | -- | -- |
| WQ0019336 | Town of Carolina Beach | 0 | -- | -- | 19.73 | -- | -- | -- | -- |
| WQ0019569 | Colvard Farms | 6,680,172 | 0.68 | -- | 7.90 | -- | -- | -- | -- |
| WQ0019632 | Johnston County RWF | 61,692,315 | 0.51 | -- | 0.26 | -- | 1.29 | -- | -- |
| WQ0019755 | Oak Ridge Commons | 3,643,711 | 0.87 | -- | 8.43 | -- | -- | -- | -- |
| WQ0019908 | Johnston County Country Club | 26,181,891 | -- | -- | -- | -- | -- | -- | -- |
| WQ0020248 | Sanford Golf Course | 7,998,697 | 0.09 | -- | 6.12 | -- | 1.48 | -- | -- |
| WQ0020409 | Little Creek WWTP | 32,389,200 | | | | | | | |
| WQ0020809 | Farmville Golf and Country Club | 9,439,411 | -- | -- | -- | -- | -- | -- | -- |
| WQ0021289 | Town of Hertford | 0 | 0.10 | -- | 17.92 | -- | 1.05 | -- | -- |
| WQ0021934 | Hasentree Golf Community | 38,101,427 | 0.07 | -- | 52.71 | -- | -- | -- | -- |
| WQ0022036 | E.M. Johnson WTP | 0 | 0.01 | -- | -- | 0.37 | 2.66 | -- | -- |
| WQ0022052 | Hampstead Pines Subdivision | 3,494,643 | 0.20 | -- | 20.44 | -- | -- | -- | -- |
| WQ0022224 | Town of Clayton | 17,816,016 | 0.39 | -- | 4.50 | -- | -- | -- | -- |
| WQ0022228 | Town of Farmville | 5,057,400 | 0.16 | -- | -- | -- | -- | -- | -- |
| WQ0022501 | Town of Benson RWS | 1,013,936 | -- | -- | -- | -- | -- | -- | -- |
| WQ0022697 | Scotland Neck WWTP | 95,950 | 0.14 | -- | 17.92 | -- | 1.17 | -- | -- |
| WQ0022725 | Slash Condominiums | 139,431 | 0.77 | -- | 20.33 | -- | -- | -- | -- |
| WQ0022870 | Buck Mountain Service Area | 59,763,096 | 2.54 | 0.42 | 30.17 | -- | -- | -- | -- |
| WQ0023213 | Lexington Golf Course | 42,315,781 | 0.18 | | 17.08 | | | | |
| WQ0023261 | Swansboro WWTF | 136,292,279 | 1.29 | -- | 14.88 | -- | 1.10 | -- | -- |
| WQ0023580 | Cove Key Townhomes on Lake Norman | 529,411 | 0.44 | -- | 26.52 | -- | -- | -- | -- |
| WQ0023934 | Pikeville WWTF | 43,902,794 | 0.39 | -- | 7.70 | -- | 2.46 | -- | -- |
| WQ0024223 | Pine Hollow Golf Course | 23,465,273 | -- | -- | -- | -- | -- | -- | -- |

| Permit # | Facility Name | Volume in Gallons | Average of Monthly Mean Concentrations in mg/L | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | NH3 | NO2 | NO3 | NO2+NO3 | TKN | TN | TP |
| WQ0024320 | Rockbridge Subdivision | 2,941,879 | 0.62 | -- | 33.87 | 14.67 | -- | 37.60 | -- |
| WQ0024694 | Bright's Creek Golf Course | 5,825,838 | 0.15 | -- | 17.00 | -- | -- | -- | -- |
| WQ0024838 | Town of Pittsboro | 11,391,491 | 0.28 | -- | 24.03 | 26.62 | 2.24 | -- | -- |
| WQ0028693 | Briar Chapel | 4,777,774 | 1.34 | -- | 8.22 | 8.32 | -- | -- | -- |
| WQ0028693 | Mountaintop Golf & Lake Club | 4,188,593 | 1.65 | -- | 4.00 | -- | -- | -- | -- |
| WQ0029169 | Mount Olive WWTP | 19,503,753 | 1.00 | -- | 10.13 | -- | 2.07 | -- | -- |
| WQ0029289 | Kinston Regional WRF | 3,962,462 | 0.11 | -- | -- | 1.24 | 0.75 | -- | -- |
| WQ0029475 | Sterling Farms WWTF | 15,901,387 | 0.22 | -- | 9.30 | 9.36 | -- | -- | -- |
| WQ0029601 | Southwest Plantation and Bear Trail Golf Course | 684,837 | 0.13 | -- | 40.91 | -- | -- | -- | -- |
| WQ0029894 | Camden County WWTP | 26,531,172 | 2.65 | -- | 34.83 | -- | -- | -- | -- |
| WQ0030755 | Avendale WWTF | 757,045 | 0.29 | -- | 17.78 | -- | -- | 15.80 | -- |
| WQ0031317 | Global Nuclear Fuel | 0 | 0.00 | -- | -- | -- | -- | -- | -- |
| WQ0031506 | Mason Farm WWTP | 145,117,000 | 0.11 | -- | -- | 10.39 | -- | -- | -- |
| WQ0032289 | Utley Creek WWTP | 7,084,598 | 0.25 | -- | 1.00 | -- | -- | -- | -- |
| WQ0032515 | North Durham WRF | 109,120 | 0.40 | -- | -- | -- | -- | -- | -- |
| WQ0032605 | City of Monroe | 2,100 | 0.00 | -- | -- | 31.30 | -- | -- | -- |
| WQ0032757 | Smith Creek WWTP | 0 | 0.02 | -- | -- | 3.63 | 1.29 | -- | -- |
| WQ0033374 | River Ridge Golf Course | 595,602 | -- | -- | -- | -- | -- | -- | -- |
| WQ0034350 | City of Hendersonville | 0 | 0.50 | -- | -- | -- | -- | -- | -- |
| WQ0034715 | The Club at 12 Oaks | 1,068,609 | -- | -- | -- | -- | -- | -- | -- |
| Wastewater Irrigation - Other | | | | | | | | | |
| WQ0000193 | Village of Bald Head Island WWTF | 22,747,194 | 1.26 | -- | 23.05 | -- | -- | -- | -- |
| WQ0031030 | Currituck County BOE – North Elementry | 345,492 | -- | -- | 13.21 | -- | 2.00 | -- | -- |

**Appendix B: Summary of Wastewater Land Application by Subwatershed, in Gallons**

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| Roanoke River Basin | | | | | | | |
| 030101020801 | Little Grassy Creek | 15,466 | 9,506,284 | 0 | 0 | 0 | 9,506,284 |
| 030101020803 | Beech Creek-Johnson Creek | 23,363 | 74,672 | 0 | 0 | 0 | 74,672 |
| 030101040202 | Upper Country Line Creek | 35,469 | 363,455 | 0 | 0 | 0 | 363,455 |
| 030101040201 | South Country Line Creek | 28,426 | 0 | 0 | 0 | 558,450 | 558,450 |
| 030101040502 | Hyco Creek | 36,344 | 0 | 0 | 0 | 394,200 | 394,200 |
| 030101040503 | Upper South Hyco Creek | 18,570 | 0 | 0 | 0 | 175,200 | 175,200 |
| 030101040504 | Middle South Hyco Creek | 17,530 | 0 | 0 | 0 | 306,600 | 306,600 |
| 030101040505 | Lower South Hyco Creek | 15,959 | 0 | 0 | 0 | 350,400 | 350,400 |
| 030101040506 | Hyco Creek-Hyco Lake | 13,216 | 23,095 | 0 | 0 | 0 | 23,095 |
| 030101040507 | Cane Creek-Hyco Lake | 14,189 | 0 | 0 | 0 | 788,400 | 788,400 |
| 030101040603 | Bowes Branch-Hyco River | 16,904 | 60,418 | 0 | 0 | 219,000 | 279,418 |
| 030101040604 | Headwaters Mayo Creek | 21,397 | 261,659 | 0 | 0 | 0 | 261,659 |
| 030101040701 | Headwaters Aarons Creek | 18,007 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030101060205 | Blue Mud Creek-Smith Creek | 23,152 | 2,479,182 | 0 | 0 | 0 | 2,479,182 |
| 030101060402 | Pea Hill Creek-Lake Gaston | 32,533 | 18,352,642 | 0 | 0 | 0 | 18,352,642 |
| 030101070104 | Quankey Creek | 22,236 | 2,431,666 | 0 | 0 | 0 | 2,431,666 |
| 030101070202 | Gumberry Swamp | 22,729 | 52,053,354 | 0 | 0 | 0 | 52,053,354 |
| 030101070206 | Bridgers Creek-Roanoke River | 21,826 | 323,527 | 0 | 0 | 0 | 323,527 |
| Chowan River Basin | | | | | | | |
| 030102030206 | Sarem Creek-Chowan River | 19,777 | 14,102,709 | 0 | 0 | 0 | 14,102,709 |
| 030102030301 | Town of Aulander-Upper Ahoskie Creek | 24,783 | 53,162,308 | 0 | 0 | 0 | 53,162,308 |
| 030102030304 | Town of Ahoskie-Middle Ahoskie Creek | 20,182 | 245,643,053 | 0 | 0 | 0 | 245,643,053 |
| 030102030402 | Barbeque Swamp | 10,915 | 442,430 | 0 | 0 | 0 | 442,430 |
| 030102030403 | Chinkapin Swamp | 11,914 | 19,637,844 | 0 | 0 | 0 | 19,637,844 |
| 030102030504 | Bennetts Creek | 19,261 | 2,264,776 | 0 | 0 | 0 | 2,264,776 |
| 030102030705 | Salmon Creek | 12,550 | 1,210,155 | 0 | 0 | 0 | 1,210,155 |
| 030102040805 | Upper Potecasi Creek | 19,692 | 25,573,638 | 0 | 0 | 0 | 25,573,638 |
| 030102040808 | Lower Potecasi Creek | 25,929 | 111,272,444 | 0 | 0 | 0 | 111,272,444 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030102040901 | Cypress Creek | 19,703 | 29,549,755 | 0 | 0 | 0 | 29,549,755 |
| 030102040902 | Buckhorn Swamp-Meherrin River | 27,566 | 15,955,668 | 0 | 0 | 0 | 15,955,668 |
| 030102040905 | Barretts Crossroads-Meherrin River | 27,287 | 125,536,251 | 0 | 0 | 0 | 125,536,251 |
| 030102040907 | Kirbys Creek | 25,138 | 44,274,664 | 0 | 0 | 0 | 44,274,664 |
| Pasquotank River Basin | | | | | | | |
| 030102050101 | Pembroke Creek | 20,356 | 241,453,538 | 0 | 0 | 0 | 241,453,538 |
| 030102050102 | Edenton Bay | 13,554 | 291,653 | 0 | 0 | 0 | 291,653 |
| 030102050105 | Town of Edenton-Albemarle Sound | 24,152 | 5,581,620 | 0 | 0 | 0 | 5,581,620 |
| 030102050207 | Bull Creek-Deep Creek | 28,053 | 1,535,140 | 0 | 0 | 0 | 1,535,140 |
| 030102050403 | Yeopim Creek | 9,421 | 28,987,561 | 0 | 0 | 0 | 28,987,561 |
| 030102050404 | Holiday Island-Yeopim River | 11,622 | 657,974 | 0 | 0 | 0 | 657,974 |
| 030102050405 | Holiday Island-Minzies Creek | 11,197 | 5,474,903 | 0 | 0 | 0 | 5,474,903 |
| 030102050605 | Corapeake Swamp | 14,715 | 1,632,980 | 0 | 0 | 0 | 1,632,980 |
| 030102050704 | Shipyard Landing-Pasquotank River | 32,427 | 46,511,935 | 0 | 0 | 0 | 46,511,935 |
| 030102051002 | Great Swamp-North River | 32,282 | 2,527,548 | 0 | 0 | 0 | 2,527,548 |
| 030102051102 | Culpeper Island-Dismal Swamp | 12,699 | 0 | 0 | 26,531,172 | 0 | 26,531,172 |
| 030102051105 | Moyock Run | 9,707 | 7,482,634 | 0 | 0 | 0 | 7,482,634 |
| 030102051106 | Roland Creek | 17,067 | 0 | 0 | 19,430,051 | 0 | 19,430,051 |
| 030102051107 | Tull Creek | 16,502 | 0 | 0 | 0 | 0 | 345,492 |
| 030102051305 | Sanders Bay-Currituck Sound | 38,817 | 0 | 85,467,700 | 11,103,035 | 0 | 96,570,734 |
| 030102051306 | Dowdy Bay-Currituck Sound | 60,382 | 6,867,903 | 0 | 65,558,914 | 0 | 72,426,816 |
| 030102051403 | Town of Kill Devil Hills-Kitty Hawk Bay | 11,357 | 0 | 1,091,839 | 0 | 0 | 1,091,839 |
| 030102051404 | Buzzard Bay-Roanoke Sound | 23,893 | 0 | 67,680,787 | 0 | 0 | 67,680,787 |
| Tar-Pamlico River Basin | | | | | | | |
| 030201010102 | Headwaters Tar River | 17,115 | 0 | 0 | 0 | 394,200 | 394,200 |
| 030201010106 | Aycock Creek-Tar River | 19,695 | 16,937,920 | 0 | 0 | 0 | 16,937,920 |
| 030201010303 | Bear Swamp Creek-Tar River | 21,155 | 109,054,571 | 0 | 0 | 0 | 109,054,571 |
| 030201010401 | Upper Cedar Creek | 30,180 | 119,853,179 | 0 | 0 | 0 | 119,853,179 |
| 030201010601 | Lake Sagamore-Cyprus Creek | 20,221 | 51,430 | 0 | 0 | 0 | 51,430 |
| 030201010604 | Upper Sapony Creek | 20,836 | 773,707 | 0 | 0 | 0 | 773,707 |
| 030201020203 | Upper Little Fishing Creek | 22,471 | 110,464 | 0 | 0 | 0 | 110,464 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030201020604 | Middle Deep Creek | 24,847 | 0 | 0 | 95,950 | 0 | 95,950 |
| 030201020606 | Outlet Fishing Creek | 17,637 | 489,042 | 0 | 0 | 0 | 489,042 |
| 030201030102 | Upper Town Creek | 14,576 | 53,588,722 | 0 | 0 | 0 | 53,588,722 |
| 030201040103 | Hills Creek-Pamlico River | 20,821 | 34,214 | 0 | 56,854 | 0 | 91,069 |
| 030201040109 | Duck Creek-Pamlico River | 25,394 | 597,495 | 0 | 0 | 0 | 597,495 |
| 030201040201 | Back Creek-Bath Creek | 25,112 | 10,497,486 | 0 | 0 | 0 | 10,497,486 |
| 030201040204 | Mixon Creek-Pamlico River | 16,020 | 0 | 4,262,414 | 0 | 0 | 4,262,414 |
| 030201040207 | East Fork Pamlico River-Pamlico River | 40,331 | 86,826 | 0 | 0 | 0 | 86,826 |
| 030201040304 | Deep Run-Broad Creek | 25,968 | 2,328,078 | 0 | 0 | 131,400 | 2,459478 |
| 030201040505 | Town of Belhaven-Pungo River | 31,740 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030201040601 | Acre Swamp-Pungo Swamp | 27,306 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030201050102 | Rose Bay Canal-Rose Bay Creek | 23,216 | 32,803,886 | 0 | 0 | 0 | 32,803,886 |
| 030201050104 | Town of SwanQuarter-SwanQuarter Bay | 29,598 | 35,967,109 | 0 | 0 | 0 | 35,967,109 |
| 030201050105 | Juniper Bay Creek-Juniper Bay | 20,614 | 1,945,970 | 0 | 0 | 0 | 1,945,970 |
| 030201050304 | Town of Avon-Hatteras Island | 31,925 | 0 | 51,471 | 12,016 | 0 | 63,487 |
| 030201050305 | Sandy Bay-Hatteras Island | 30,284 | 0 | 0 | 139,431 | 0 | 139,431 |
| 030201050402 | Styron Bay-Cedar Inlet | 23,375 | 123,280 | 0 | 0 | 87,600 | 210,880 |
| | Neuse River Basin | | | | | | |
| 030202010101 | North Flat River | 25,704 | 0 | 0 | 0 | 569,400 | 569,400 |
| 030202010102 | South Flat River | 36,181 | 464,881 | 0 | 0 | 1,401,600 | 1,866,481 |
| 030202010103 | Deep Creek | 23,601 | 113,551 | 0 | 0 | 262,800 | 376,351 |
| 030202010104 | Lake Michie-Flat River | 26,422 | 0 | 0 | 0 | 1,007,400 | 1,007,400 |
| 030202010201 | North Fork Little River | 21,034 | 144,993 | 0 | 0 | 2,325,050 | 2,470,043 |
| 030202010202 | South Fork Little River | 25,041 | 0 | 0 | 0 | 832,200 | 832,200 |
| 030202010203 | Mountain Creek-Little River | 21,043 | 0 | 0 | 0 | 175,200 | 175,200 |
| 030202010301 | Lake Orange-Eno River | 17,114 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030202010302 | Sevenmile Creek-Eno River | 25,120 | 0 | 0 | 0 | 646,050 | 646,050 |
| 030202010303 | Stony Creek-Eno River | 30,514 | 0 | 0 | 0 | 175,200 | 175,200 |
| 030202010304 | Crooked Creek-Eno River | 26,361 | 0 | 0 | 0 | 427,050 | 427,050 |
| 030202010401 | Upper Knap of Reeds Creek | 18,373 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030202010404 | Panther Creek-Neuse River | 16,061 | 0 | 0 | 0 | 1,916,250 | 1,916,250 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030202010501 | Lodge Creek | 21,583 | 658,899 | 0 | 0 | 569,400 | 1,228,299 |
| 030202010502 | Lick Creek | 13,947 | 105,644 | 0 | 0 | 2,704,650 | 2,810,294 |
| 030202010503 | Beaverdam Creek | 33,613 | 0 | 0 | 0 | 525,600 | 525,600 |
| 030202010504 | Little Lick Creek-Neuse River | 19,822 | 1,937,370 | 0 | 0 | 3,142,650 | 5,080,020 |
| 030202010602 | Upper Barton Creek-Neuse River | 23,829 | 600,007 | 0 | 0 | 394,200 | 994,207 |
| 030202010603 | Horse Creek | 13,982 | 0 | 0 | 38,101,427 | 0 | 38,101,427 |
| 030202010604 | Honeycutt Creek-Neuse River | 11,016 | 0 | 0 | 0 | 613,200 | 613,200 |
| 030202010705 | Mango Creek-Neuse River | 15,327 | 587,334 | 0 | 0 | 0 | 587,334 |
| 030202010801 | Upper Crabtree Creek | 33,685 | 100,818 | 0 | 0 | 558,450 | 659,268 |
| 030202010802 | Turkey Creek | 10,304 | 0 | 0 | 0 | 87,600 | 87,600 |
| 030202010902 | Middle Middle Creek | 17,047 | 1,581,194 | 0 | 0 | 0 | 1,581,194 |
| 030202010903 | Lower Middle Creek | 30,989 | 0 | 0 | 61,692,315 | 0 | 61,692,315 |
| 030202011004 | Mahlers Creek-Swift Creek | 14,862 | 34,761,765 | 0 | 0 | 0 | 34,761,765 |
| 030202011103 | Poplar Creek-Neuse River | 32,166 | 0 | 0 | 10,111,809 | 0 | 10,111,809 |
| 030202011203 | Holts Lake-Black Creek | 24,037 | 0 | 0 | 26,181,891 | 0 | 26,181,891 |
| 030202011301 | Upper Hannah Creek | 18,583 | 0 | 0 | 820,814 | 0 | 820,814 |
| 030202011502 | Upper Buffalo Creek | 16,047 | 12,638,206 | 0 | 0 | 0 | 12,638,206 |
| 030202011503 | Cattail Creek-Little River | 39,365 | 2,893,524 | 0 | 0 | 0 | 2,893,524 |
| 030202011604 | Buck Swamp-Little River | 21,575 | 407,318 | 0 | 0 | 131,400 | 538,718 |
| 030202020105 | Sleepy Creek-Neuse River | 13,718 | 2,540,343 | 0 | 0 | 0 | 2,540,343 |
| 030202020305 | Stonyton Creek | 14,209 | 0 | 0 | 843,507 | 0 | 843,507 |
| 030202020307 | Mosley Creek-Neuse River | 14,188 | 0 | 0 | 3,118,955 | 0 | 3,118,955 |
| 030202020404 | Clayroot Swamp | 31,573 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030202020503 | Town of Vanceboro-Swift Creek | 15,050 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030202020504 | Headwaters Little Swift Creek | 15,332 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030202020604 | Pinetree Creek-Neuse River | 21,063 | 0 | 0 | 0 | 262,800 | 262,800 |
| 030202020606 | Outlet Bachelor Creek | 16,387 | 139,895 | 0 | 0 | 0 | 139,895 |
| 030202020607 | Hog Island-Neuse River | 8,214 | 0 | 0 | 17,587,967 | 0 | 17,587,967 |
| 030202030104 | Lower Turkey Creek | 15,989 | 24,056,807 | 0 | 0 | 0 | 24,056,807 |
| 030202030303 | Middle Toisnot Swamp | 22,546 | 0 | 0 | 1,754,438 | 0 | 1,754,438 |
| 030202030402 | Bloomery Swamp | 15,158 | 765,229 | 0 | 0 | 0 | 765,229 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030202030403 | Hominy Swamp | 9,965 | 16,711,527 | 0 | 34,933,228 | 0 | 51,644,755 |
| 030202030502 | The Slough | 15,220 | 0 | 0 | 12,470,079 | 0 | 12,470,079 |
| 030202030503 | Upper Nahunta Swamp | 13,769 | 0 | 0 | 31,432,715 | 0 | 31,432,715 |
| 030202030504 | Middle Nahunta Swamp | 9,909 | 53,244 | 0 | 0 | 0 | 53,244 |
| 030202030505 | Lower Nahunta Swamp | 12,009 | 461,210 | 0 | 0 | 0 | 461,210 |
| 030202030604 | Middle Little Contentnea Creek | 27,031 | 0 | 0 | 9,439,411 | 0 | 9,439,411 |
| 030202030702 | Tyson Marsh-Contentnea Creek | 30,297 | 1,951,055 | 0 | 0 | 0 | 1,951,055 |
| 030202030706 | Eagle Swamp-Contentnea Creek | 18,491 | 1,387,508 | 0 | 0 | 0 | 1,387,508 |
| 030202040102 | Headwaters Tuckahoe Swamp | 14,903 | 47,174,109 | 0 | 0 | 0 | 47,174,109 |
| 030202040206 | Town of Pollocksville-Trent River | 17,523 | 23,342,992 | 0 | 0 | 0 | 23,342,992 |
| 030202040305 | City of New Bern-Trent River | 14,458 | 0 | 0 | 119,609,190 | 0 | 119,609,109 |
| 030202040401 | City of New Bern-Neuse River | 14,210 | 18,818 | 0 | 0 | 0 | 18,818 |
| 030202040502 | Cherry Point Marine Corps Air Station-Slocum Creek | 37,612 | 0 | 0 | 2,005,344 | 0 | 2,005,344 |
| 030202040503 | Beard Creek | 17,390 | 149,046,205 | 0 | 0 | 0 | 149,046,205 |
| 030202040601 | Dawson Creek | 15,084 | 4,234,570 | 1,998,228 | 0 | 0 | 6,232,798 |
| 030202040701 | South River | 33,065 | 3,585,408 | 0 | 0 | 0 | 3,585,408 |
| 030202040703 | Broad Creek | 22,067 | 16,961,206 | 0 | 0 | 0 | 16,961,206 |
| 030202040901 | West Thorofare Bay-Long Bay | 25,622 | 129,819 | 0 | 0 | 0 | 129,819 |
| | White Oak River Basin | | | | | | |
| 030203010203 | Mulberry Creek-White Oak River | 8,515 | 0 | 0 | 15,901,387 | 0 | 15,901,387 |
| 030203010301 | Queen Creek | 21,022 | 3,407,200 | 0 | 136,292,279 | 175,200 | 139,874,680 |
| 030203010304 | Bogue Sound-Bogue Inlet | 14,798 | 3,388,312 | 15,305,362 | 0 | 0 | 18,693,674 |
| 030203010406 | Newport Marshes-Lower Newport River | 24,596 | 0 | 7,177,939 | 0 | 0 | 7,177,939 |
| 030203010701 | Town of Salter Path-Jumping Run | 18,877 | 0 | 13,838,321 | 28,465,600 | 0 | 42,303,921 |
| 030203010702 | Morehead City-Drum Shoals | 7,567 | 0 | 29,531,986 | 0 | 0 | 29,531,986 |
| 030203010703 | Lighthouse Channel-Back Sound | 10,369 | 292,339 | 0 | 0 | 0 | 292,339 |
| 030203010704 | Carrot Island-Beaufort Inlet | 10,981 | 0 | 15,622,746 | 0 | 0 | 15,622,746 |
| 030203020204 | Headwaters Southwest Creek | 17,029 | 1,349,391,402 | 0 | 0 | 0 | 1,349,391,402 |
| 030203020205 | Outlet Southwest Creek | 29,718 | 109,953,346 | 0 | 593,104 | 0 | 110,546,449 |
| 030203020301 | Ashe Island-Stump Sound | 31,640 | 41,837,909 | 148,680,815 | 0 | 175,200 | 190,693,924 |
| 030203020403 | Beckys Creek-New Topsail Inlet | 21,531 | 1,441,412 | 0 | 28,830,949 | 0 | 30,272,361 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| Cape Fear River Basin | | | | | | | |
| 030300020102 | Reedy Fork-Lake Brandt | 23,258 | 1,160,954 | 0 | 0 | 0 | 1,160,954 |
| 030300020201 | Mears Fork-Haw River | 32,148 | 0 | 0 | 3,643,711 | 0 | 3,643,711 |
| 030300020207 | Town of Altamahaw-Haw River | 13,017 | 39,102 | 0 | 0 | 0 | 39,102 |
| 030300020302 | Upper Little Alamance Creek | 20,031 | 576,578 | 0 | 0 | 0 | 576,578 |
| 030300020304 | Middle Big Alamance Creek | 11,145 | 0 | 0 | 0 | 175,200 | 175,200 |
| 030300020307 | Rock Creek | 9,185 | 0 | 0 | 0 | 164,250 | 164,250 |
| 030300020308 | Stinking Quarter Creek | 20,794 | 0 | 0 | 0 | 569,400 | 569,400 |
| 030300020401 | Stony Creek-Lake Burlington | 29,837 | 0 | 0 | 0 | 1,949,100 | 1,949,100 |
| 030300020402 | Jordan Creek | 16,781 | 0 | 0 | 0 | 613,200 | 613,200 |
| 030300020403 | Stony Creek-Stony Creek Reservoir | 20,314 | 0 | 0 | 0 | 525,600 | 525,600 |
| 030300020404 | Travis Creek-Haw River | 22,314 | 0 | 0 | 0 | 295,650 | 295,650 |
| 030300020406 | Quaker Creek-Quaker Creek Reservoir | 9,236 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300020407 | Lower Back Creek | 21,362 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300020408 | Boyds Creek-Haw River | 19,158 | 0 | 0 | 0 | 164,250 | 164,250 |
| 030300020502 | Meadow Creek-Haw River | 17,460 | 0 | 0 | 0 | 438,000 | 438,000 |
| 030300020503 | Cane Creek | 25,118 | 0 | 0 | 0 | 427,050 | 427,050 |
| 030300020504 | Upper Cane Creek | 25,076 | 0 | 0 | 0 | 164,250 | 164,250 |
| 030300020505 | Lower Cane Creek | 18,481 | 438,813 | 0 | 0 | 0 | 438,813 |
| 030300020507 | Collins Creek | 12,524 | 113,068 | 0 | 0 | 0 | 113,068 |
| 030300020508 | Terrells Creek | 18,644 | 0 | 0 | 0 | 438,000 | 438,000 |
| 030300020509 | Terrells Creek-Haw River | 19,017 | 389,159 | 0 | 0 | 832,200 | 1,221,359 |
| 030300020601 | Headwaters New Hope Creek | 33,303 | 424,937 | 0 | 308,473 | 1,478,250 | 2,211,660 |
| 030300020603 | Little Creek | 16,126 | 0 | 0 | 0 | 2,049,475 | 2,049,475 |
| 030300020604 | New Hope Creek-B Everett Jordan Lake | 12,115 | 0 | 0 | 6,680,172 | 1,489,200 | 8,169,372 |
| 030300020605 | Northeast Creek | 30,302 | 4,278,383 | 0 | 0 | 1,003,020 | 5,281,403 |
| 030300020606 | University Lake | 19,052 | 0 | 0 | 0 | 1,357,800 | 1,357,800 |
| 030300020607 | Morgan Creek | 19,077 | 0 | 0 | 14,387,093 | 5,573,550 | 19,960,643 |
| 030300020608 | White Oak Creek | 17,423 | 0 | 0 | 35,268 | 6,832,800 | 6,868,068 |
| 030300020609 | Beaver Creek | 26,464 | 3,497,000 | 0 | 0 | 3,963,900 | 7,460,900 |
| 030300020610 | New Hope River-B Everett Jordan Lake | 35,063 | 2,764,858 | 0 | 46,654,332 | 5,124,600 | 54,543,790 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030300020701 | Dry Creek-Haw River | 22,356 | 0 | 0 | 59,763,096 | 2,014,800 | 61,777,896 |
| 030300020702 | Pokeberry Creek-Haw River | 18,550 | 68,904 | 0 | 0 | 91,250 | 160,154 |
| 030300020703 | Roberson Creek | 18,282 | 40,080,253 | 0 | 0 | 686,200 | 40,766,453 |
| 030300020704 | Stinking Creek-Haw River | 15,113 | 0 | 0 | 0 | 262,800 | 262,800 |
| 030300020705 | Shaddox Creek-Haw River | 13,658 | 1,560,038 | 0 | 0 | 350,400 | 1,910,438 |
| 030300030102 | High Point Lake-Deep River | 19,084 | 46,580 | 0 | 0 | 0 | 46,580 |
| 030300030105 | Hickory Creek-Deep River | 18,878 | 33,147 | 0 | 0 | 0 | 33,147 |
| 030300030203 | Millstone Creek-Deep River | 41,367 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300030207 | Lower Brush Creek | 24,970 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300030208 | Flat Creek-Deep River | 21,852 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300030302 | Parkwood Branch-Richland Creek | 16,483 | 1,773,482 | 0 | 0 | 0 | 1,773,482 |
| 030300030403 | Lower Cabin Creek | 32,284 | 31,218,739 | 0 | 0 | 0 | 31,218,739 |
| 030300030404 | Upper Bear Creek | 32,961 | 4,738,439 | 0 | 0 | 0 | 4,738,439 |
| 030300030406 | Grassy Creek-Deep River | 11,392 | 181,488 | 0 | 0 | 0 | 181,488 |
| 030300030408 | Tysons Creek-Deep River | 27,018 | 114,700 | 0 | 0 | 0 | 114,700 |
| 030300030501 | North Prong Rocky River-Headwaters Rocky River | 23,761 | 135,100,935 | 0 | 0 | 175,200 | 135,276,135 |
| 030300030503 | Loves Creek-Rocky River | 26,157 | 338,723 | 0 | 0 |  | 338,723 |
| 030300030504 | Tick Creek-Rocky River | 19,162 | 1,577,550 | 0 | 0 |  | 1,577,550 |
| 030300030506 | Harlands Creek | 10,095 | 0 | 0 | 0 | 182,500 | 182,500 |
| 030300030507 | Headwaters Bear Creek | 16,270 | 0 | 0 | 0 | 306,600 | 306,600 |
| 030300030508 | Harts Creek-Bear Creek | 16,818 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300030509 | Rocky River | 21,305 | 0 | 0 | 0 | 865,050 | 865,050 |
| 030300030602 | Indian Creek | 16,578 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300030604 | Smiths Creek-Deep River | 17,172 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300030605 | Cedar Creek | 8,442 | 0 | 0 | 0 | 438,000 | 438,000 |
| 030300030607 | Georges Creek-Deep River | 24,816 | 49,503,927 | 0 | 7,998,697 | 0 | 57,502,624 |
| 030300030608 | Rocky Branch-Deep River | 14,483 | 69,520 | 0 | 0 | 262,800 | 332,320 |
| 030300040101 | Lick Creek | 31,010 | 2,226,651 | 0 | 0 | 306,600 | 2,533,251 |
| 030300040102 | White Oak Creek | 29,748 | 762,177 | 0 | 8,153,208 | 1,752,000 | 10,667,385 |
| 030300040104 | Gulf Creek-Cape Fear River | 18,695 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030300040302 | Thagards Lake-Little River | 24,796 | 0 | 0 | 0 | 490,560 | 490,560 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030300040406 | Jumping Run Creek | 18,185 | 94,195,244 | 0 | 0 | 0 | 94,195,244 |
| 030300040505 | Dry Creek-Cape Fear River | 11,938 | 3,397,544 | 0 | 0 | 0 | 3,397,544 |
| 030300050104 | Phillips Creek-Cape Fear River | 28,162 | 5,980,870 | 0 | 0 | 0 | 5,980,870 |
| 030300050701 | Lilliput Creek | 15,875 | 0 | 0 | 0 | 87,600 | 87,600 |
| 030300050802 | Jump and Run Creek-Gully Creek | 16,444 | 0 | 72,411,104 | 118,251,461 | 0 | 190,662,564 |
| 030300050803 | Town of Southport-Cape Fear River | 25,484 | 0 | 0 | 0 | 0 | 22,747,194 |
| 030300060101 | Upper Black River | 23,629 | 12,120,481 | 0 | 193,121 | 0 | 12,313,602 |
| 030300060102 | Lower Black River | 13,295 | 9,038,874 | 0 | 0 | 0 | 9,038,874 |
| 030300060105 | Williamson Swamp-South River | 21,487 | 5,401,956 | 0 | 0 | 0 | 5,401,956 |
| 030300060301 | Caesar Swamp-Little Coharie Creek | 30,510 | 304,044 | 0 | 0 | 0 | 304,044 |
| 030300060302 | Mill Swamp-Little Coharie Creek | 17,371 | 16,478,361 | 0 | 0 | 0 | 16,478,361 |
| 030300060402 | Headwaters Great Coharie Creek | 22,435 | 173,787 | 0 | 0 | 0 | 173,787 |
| 030300060504 | Turkey Creek-Six Runs Creek | 17,845 | 20,062,650 | 0 | 0 | 0 | 20,062,650 |
| 030300060505 | Upper Stewarts Creek | 21,132 | 0 | 0 | 35,301 | 0 | 35,301 |
| 030300060507 | Rowan Branch-Six Runs Creek | 20,332 | 27,680,172 | 0 | 0 | 0 | 27,680,172 |
| 030300060508 | Crane Creek | 17,021 | 6,512,955 | 0 | 0 | 0 | 6,512,955 |
| 030300060510 | Tarkill Branch-Six Runs Creek | 12,424 | 4,243,367 | 0 | 0 | 0 | 4,243,367 |
| 030300060601 | Upper Colly Creek | 26,250 | 13,379,442 | 0 | 0 | 0 | 13,379,442 |
| 030300060805 | Rowan Creek-Black River | 26,201 | 6,238,339 | 0 | 0 | 0 | 6,238,339 |
| 030300070101 | Upper Goshen Swamp | 33,747 | 1,584,735 | 0 | 0 | 0 | 1,584,735 |
| 030300070104 | Middle Goshen Swamp | 34,474 | 55,073,622 | 0 | 0 | 0 | 55,073,622 |
| 030300070201 | Lewis Branch-Northeast Cape Fear River | 19,713 | 0 | 0 | 19,503,753 | 0 | 19,503,753 |
| 030300070203 | Polly Run Creek-Northeast Cape Fear River | 19,488 | 464,762,560 | 0 | 0 | 0 | 464,762,560 |
| 030300070301 | Grove Creek | 24,831 | 516,450 | 0 | 0 | 0 | 516,450 |
| 030300070304 | Headwaters Maxwell Creek | 22,021 | 118,433,167 | 0 | 0 | 0 | 118,433,167 |
| 030300070501 | Duff Creek | 13,426 | 20,190,137 | 0 | 0 | 0 | 20,190,137 |
| 030300070602 | Headwaters Sandy Run Swamp | 17,044 | 0 | 0 | 91,733 | 0 | 91,733 |
| 030300070606 | Upper Shaken Creek | 20,016 | 153,759,777 | 0 | 0 | 0 | 153,759,777 |
| 030300070611 | Lewis Creek-Northeast Cape Fear River | 34,873 | 275,535 | 0 | 0 | 0 | 275,535 |
| 030300070705 | Lower Long Creek | 13,709 | 362,007 | 0 | 0 | 0 | 362,007 |
| 030300070803 | Trumpeter Swamp | 12,809 | 720,932 | 0 | 0 | 0 | 720,932 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030300070804 | Harrisons Creek | 23,433 | 363,581 | 0 | 0 | 0 | 363,581 |
| 030300070805 | Island Creek-Northeast Cape Fear River | 24,429 | 82,799 | 0 | 0 | 0 | 82,799 |
| Yadkin-Pee Dee River Basin | | | | | | | |
| 030401010104 | Elk Creek | 32,340 | 5,113,232 | 0 | 0 | 0 | 5,113,232 |
| 030401010607 | Williams Creek-Yadkin River | 8,983 | 4,518,908 | 0 | 0 | 0 | 4,518,908 |
| 030401011102 | North Deep Creek | 28,548 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030401011402 | Cedar Creek | 14,904 | 0 | 0 | 0 | 164,250 | 164,250 |
| 030401011404 | Lower Dutchmans Creek | 29,297 | 202,028 | 0 | 0 | 0 | 202,028 |
| 030401011503 | Dykers Creek-Yadkin River | 32,998 | 1,265,933 | 0 | 0 | 0 | 1,265,933 |
| 030401030105 | Deals Creek-Yadkin River | 23,405 | 1,736,375 | 0 | 0 | 0 | 1,736,375 |
| 030401030201 | Brushy Fork | 15,828 | 0 | 0 | 0 | 175,200 | 175,200 |
| 030401030203 | Rich Fork | 31,294 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030401030206 | Pounder Fork-Abbotts Creek | 19,941 | 3,207,421 | 0 | 42,315,781 | 0 | 45,523,201 |
| 030401030302 | Crane Creek-High Rock Lake | 21,241 | 3,459,429 | 0 | 0 | 0 | 3,459,429 |
| 030401030303 | Second Creek-High Rock Lake | 34,418 | 0 | 0 | 0 | 175,200 | 175,200 |
| 030401030404 | Caraway Creek | 31,270 | 148,902 | 0 | 0 | 0 | 148,902 |
| 030401030406 | Jackson Creek-Uwharrie River | 25,516 | 690,198 | 0 | 0 | 0 | 690,198 |
| 030401030603 | Riles Creek | 19,787 | 310,716 | 0 | 0 | 0 | 310,716 |
| 030401030605 | Beaverdam Creek-Yadkin River | 42,390 | 17,344,311 | 0 | 9,190,124 | 0 | 26,534,435 |
| 030401040102 | Upper Brown Creek | 26,054 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030401040104 | Goulds Fork | 16,201 | 3,168,718 | 0 | 0 | 0 | 3,168,718 |
| 030401040105 | Lower Brown Creek | 30,032 | 38,350,644 | 0 | 0 | 0 | 38,350,644 |
| 030401050101 | Clarke Creek | 18,018 | 0 | 0 | 0 | 328,500 | 328,500 |
| 030401050102 | Headwaters Rocky River | 30,931 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030401050105 | Lower Coddle Creek | 20,165 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030401050302 | Reedy Creek | 27,567 | 0 | 0 | 0 | 306,600 | 306,600 |
| 030401050304 | Lower Dutch Buffalo Creek | 23,836 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030401050307 | Muddy Creek-Rocky River | 33,634 | 249,583 | 0 | 0 | 0 | 249,583 |
| 030401050402 | Upper Long Creek | 21,391 | 24,678 | 0 | 0 | 175,200 | 199,878 |
| 030401050406 | Lower Long Creek | 19,487 | 2,887,153 | 0 | 0 | 0 | 2,887,153 |
| 030401050602 | Middle Lanes Creek | 21,083 | 0 | 0 | 0 | 273,750 | 273,750 |

| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030401050701 | Goose Creek | 27,058 | 17,047,909 | 0 | 0 | 700,800 | 17,748,709 |
| 030402010102 | Upper Hitchcock Creek | 28,323 | 24,797,142 | 0 | 0 | 0 | 24,797,142 |
| 030402010401 | Deadfall Creek | 20,139 | 0 | 0 | 0 | 131,400 | 131,400 |
| Lumber River Basin | | | | | | | |
| 030402030102 | Headwaters Drowning Creek | 23,711 | 1,498,156 | 0 | 0 | 0 | 1,498,156 |
| 030402030302 | Gum Swamp | 24,582 | 339,308,357 | 0 | 0 | 0 | 339,308,357 |
| 030402030303 | Town of Maxton-Lumber River | 14,950 | 425,799,881 | 0 | 0 | 0 | 425,799,881 |
| 030402030603 | Upper Big Marsh Swamp | 15,950 | 673,107,921 | 0 | 0 | 0 | 673,107,921 |
| 030402030604 | Lower Big Marsh Swamp | 25,970 | 42,232,556 | 0 | 0 | 0 | 42,232,556 |
| 030402030703 | Goodman Swamp | 12,550 | 4,028,197 | 0 | 0 | 0 | 4,028,197 |
| 030402030802 | Jackson Swamp-Big Swamp | 27,591 | 160,674,841 | 0 | 0 | 0 | 160,674,841 |
| 030402030901 | Bryant Swamp | 15,135 | 5,680,275 | 0 | 0 | 0 | 5,680,275 |
| 030402040103 | Joes Creek | 21,755 | 29,701,521 | 0 | 0 | 0 | 29,701,521 |
| 030402040305 | Maxton Pond-Shoe Heel Creek | 30,520 | 6,595,227 | 0 | 0 | 0 | 6,595,227 |
| 030402060701 | Cawcaw Swamp | 25,907 | 0 | 0 | 26,845,406 | 0 | 26,845,406 |
| 030402080101 | Middle Swamp | 17,975 | 0 | 1,760,836 | 0 | 0 | 1,760,836 |
| 030402080102 | Headwaters Lockwoods Folly River | 11,633 | 0 | 9,620,560 | 0 | 0 | 9,620,560 |
| 030402080103 | Royal Oak Swamp | 20,178 | 0 | 109,790,279 | 0 | 0 | 109,790,279 |
| 030402080104 | Scotts Branch-Lockwoods Folly River | 11,221 | 0 | 10,033,153 | 0 | 0 | 10,033,153 |
| 030402080106 | Pamlico Creek-Lockwoods Folly River | 16,729 | 0 | 47,097,965 | 0 | 0 | 47,097,965 |
| 030402080201 | Upper Shallotte River | 9,136 | 210,641 | 0 | 14,625,841 | 0 | 14,836,483 |
| 030402080202 | Middle Shallotte River | 12,294 | 20,796,403 | 0 | 0 | 0 | 20,796,403 |
| 030402080204 | Lower Shallotte River | 24,525 | 0 | 0 | 131,712,987 | 0 | 131,712,987 |
| 030402080302 | Calabash Creek | 6,399 | 0 | 0 | 71,406,267 | 0 | 71,406,267 |
| Catawba River Basin | | | | | | | |
| 030501010102 | Headwaters Catawba River | 23,971 | 0 | 0 | 0 | 131,400 | 131,400 |
| 030501010604 | Upper Silver Creek | 17,185 | 2,176,309 | 0 | 0 | 0 | 2,176,309 |
| 030501011103 | Buffalo Shoals Creek | 14,596 | 352,148 | 0 | 0 | 0 | 352,148 |
| 030501011106 | Stumpy Creek-Lake Norman | 34,032 | 555,794 | 0 | 0 | 0 | 555,794 |
| 030501011202 | Little Creek-Lake Norman | 18,931 | 382,941 | 0 | 0 | 0 | 382,941 |
| 030501011203 | Reeds Creek-Lake Norman | 23,949 | 0 | 0 | 3,368,446 | 0 | 3,368,446 |

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| 12-Digit HUC | 12-Digit HUC Name | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|---|
| 030501011403 | Long Creek | 23,188 | 33,807 | 0 | 0 | 0 | 33,807 |
| 030501011504 | Lower Crowders Creek | 36,665 | 225,924 | 0 | 0 | 0 | 225,924 |
| 030501030202 | East Fork Twelvemile Creek | 34,351 | 0 | 0 | 0 | 175,200 | 175,200 |
| 030501030603 | Waxhaw Creek | 33,616 | 0 | 0 | 0 | 131,400 | 131,400 |
| Broad River Basin | | | | | | | |
| 030501050104 | Lake Adger-Green River | 21,247 | 0 | 0 | 5,825,838 | 0 | 5,825,838 |
| 030501050602 | Brier Creek-First Broad River | 20,109 | 4,627,022 | 0 | 0 | 0 | 4,627,022 |
| Savannah River Basin | | | | | | | |
| 030601010101 | Lake Toxaway-Headwaters Toxaway River | 15,661 | 4,758,802 | 0 | 0 | 0 | 4,758,802 |
| French Broad River Basin | | | | | | | |
| 060101050105 | Cherryfield Creek-French Broad River | 14,192 | 1,323,660 | 0 | 020 | 0 | 1,323,660 |
| 060101050202 | Davidson River | 30,181 | 872,052 | 0 | 0 | 0 | 872,052 |
| 060101050301 | Upper Mud Creek | 33,850 | 3,623,611 | 0 | 0 | 0 | 3,623,611 |
| 060101050302 | Clear Creek | 28,782 | 4,885,490 | 0 | 0 | 0 | 4,885,490 |
| 060101050303 | Lower Mud Creek | 9,450 | 19,469,050 | 0 | 0 | 0 | 19,469,050 |
| 060101050404 | Shaw Creek-French Broad River | 28,063 | 1,738,397 | 0 | 0 | 0 | 1,738,397 |
| 060101050704 | Avery Creek-French Broad River | 18,925 | 0 | 0 | 3,927,840 | 0 | 3,927,840 |
| 060101050904 | Flat Creek | 15,818 | 606 | 0 | 0 | 0 | 606 |
| 060101050905 | Turkey Creek | 19,477 | 109,168 | 0 | 0 | 0 | 109,168 |
| 060101080201 | Upper South Toe River | 27,646 | 31,404 | 0 | 0 | 0 | 31,404 |
| Little Tennessee River Basin | | | | | | | |
| 060102030102 | Thorpe Lake-West Fork Tuckasegee River | 23,517 | 0 | 0 | 4,188,593 | 0 | 4,188,593 |

* Reported Volume excludes 3 WW Irrigation permits, 1 High-Rate Infiltration permit, and 16 Reclaimed Water permits did not submit the application location.
** Permitted Volume

**Appendix C: Wastewater Irrigation Permits and Waste Source Type**

| Permit # | Facility Name | Volume in Gallons | Waste Source Type |
|---|---|---|---|
| WQ0000265 | Washington Correctional Center | 1,535,140 | Institutional |
| WQ0000267 | Gates Correctional Center #4130 | 2,264,776 | Institutional |
| WQ0000426 | Nor-Am Land Company | 407,318 | Pesticide and Herbicide Production |
| WQ0000484 | Mountaire Farms Processing Plant | 715,340,476 | Animal Processing and Rendering |
| WQ0000485 | Carolina by Products – Rose Hill Processing | 26,473,042 | Animal Processing and Rendering |
| WQ0000488 | Jordan Lake SRA - Vista Point | 394,932 | Lodging/Campground/Rest Area |
| WQ0000550 | Currituck County Detention Center | 2,527,548 | Institutional |
| WQ0000579 | Pepsi Cola Bottling – Car Wash Facility | 74,291 | Car Wash |
| WQ0000601 | CSX Transporation | 1,023,000 | Other |
| WQ0000633 | Town of Candor WWTP | 31,218,739 | Municipal and/or Domestic |
| WQ0000731 | Lake Toxaway Co-Golf Course | 4,758,802 | Municipal and/or Domestic |
| WQ0000777 | Aulander Town-WWTP/Spray Facility | 53,162,308 | Municipal and/or Domestic |
| WQ0000795 | Surf City WWTF | 153,759,777 | Municipal and/or Domestic |
| WQ0000798 | Shallotte WWTF | 20,796,403 | Municipal and/or Domestic |
| WQ0000819 | Plantation Harbor | 3,585,408 | Municipal and/or Domestic |
| WQ0000884 | Mt Olive Turkey Processing Facility | 464,762,560 | Animal Processing and Rendering |
| WQ0000948 | Town of Jackson - Spray/Res &Bus | 52,053,354 | Municipal and/or Domestic |
| WQ0000957 | Valley Protein Inc-Wadesboro | 41,519,362 | Animal Processing and Rendering |
| WQ0000961 | R J Reynolds Tobacco Company | 202,028 | Tobacco Processing |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | 1,736,375 | Chemical Manufacturing |
| WQ0001173 | Prestage Foods, Inc. | 160,674,841 | Animal Processing and Rendering |
| WQ0001189 | Rollingview Marina | 72,133 | Lodging/Campground/Rest Area |
| WQ0001203 | Ponderosa Subdivision | 2,893,524 | Municipal and/or Domestic |
| WQ0001284 | Town of Conway WWTP | 43,757,782 | Municipal and/or Domestic |
| WQ0001536 | Perdue Grain and Oilseed, LLC | 14,102,709 | Vegetable and Fruit Processing |
| WQ0001602 | Town of Winton WWTP | 111,272,444 | Municipal and/or Domestic |
| WQ0001755 | Townsends Processing Facility | 40,080,253 | Animal Processing and Rendering |
| WQ0001817 | Albemarle Plantation | 28,987,561 | Municipal and/or Domestic |
| WQ0001868 | Severn Town WWTF | 15,955,668 | Municipal and/or Domestic |
| WQ0002001 | Waters Edge POA | 2,847,398 | Municipal and/or Domestic |
| WQ0002004 | Bass Farms Inc. | 773,707 | Animal Processing and Rendering |
| WQ0002005 | Rose Hill Fresh/IQF Chicken Processing Plant | 108,659,066 | Animal Processing and Rendering |
| WQ0002012 | Georgia-Pacific Chemicals LLC | 5,389,179 | Other |
| WQ0002015 | Oak Hill Fellowship Center | 74,672 | Institutional |
| WQ0002052 | Milliken Incorporated-Golden Valley | 4,627,022 | Textile Manufacturing |
| WQ0002056 | Gatlin-Ramsey Mobile Home Park WWTF | 3,407,200 | Municipal and/or Domestic |
| WQ0002075 | Enterprise Rendering Company WWTF | 2,887,153 | Animal Processing and Rendering |
| WQ0002096 | Pinewood Manor Rest Home | 2,963,421 | Institutional |
| WQ0002121 | Sandling Beach - Falls Lake SRA | 658,899 | Lodging/Campground/Rest Area |
| WQ0002204 | Morrison Correctional Institution | 24,797,142 | Institutional |

| Permit # | Facility Name | Volume in Gallons | Waste Source Type |
|---|---|---|---|
| WQ0002410 | Key Gilbert-Key Packing | 181,488 | Animal Processing and Rendering |
| WQ0002428 | Townsends Hatchery | 1,577,550 | Hatchery |
| WQ0002503 | Frit Car - Bridgeton Facility | 18,818 | Car Wash |
| WQ0002519 | Holiday Island POA | 1,265,544 | Municipal and/or Domestic |
| WQ0002520 | Town of Bath WRF | 10,497,486 | Municipal and/or Domestic |
| WQ0002560 | Town of Baily WWTP | 24,056,807 | Municipal and/or Domestic |
| WQ0002571 | Village Oak Mobile Home Park WWTF | 1,383,085 | Municipal and/or Domestic |
| WQ0002621 | Town of Salemburg | 16,478,361 | Municipal and/or Domestic |
| WQ0002638 | Town of Angier | 12,120,481 | Municipal and/or Domestic |
| WQ0002648 | Seagrove-Ulah Metropolitan Water District | 4,094,866 | Municipal and/or Domestic |
| WQ0002665 | Jordan Lake SRA - Parkers Creek | 1,890,427 | Lodging/Campground/Rest Area |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | 34,761,765 | Municipal and/or Domestic |
| WQ0002715 | Perdue Farms Inc-Eagle Springs | 1,498,156 | Municipal and/or Domestic |
| WQ0002766 | Town of Gibson WWTP | 29,701,521 | Municipal and/or Domestic |
| WQ0002806 | Novozymes North America Inc. | 228,907,750 | Pharmaceutical Manufacturing |
| WQ0002838 | Deerhurst Mobile Home Park | 12,638,206 | Municipal and/or Domestic |
| WQ0002844 | Triangle Brick Company - South Plant | 31,567 | Mining |
| WQ0002848 | Ball's Laundromat | 51,430 | Laundromat |
| WQ0002857 | Matkins Meat Processors Inc. | 39,102 | Animal Processing and Rendering |
| WQ0002927 | Domtar Paper Co. - Bonsal Chip Mill | 52,690 | Wood Products Manufacturing |
| WQ0002994 | Carolina Lakes WWTF | 94,195,244 | Municipal and/or Domestic |
| WQ0003090 | Town of Liberty | 132,091,914 | Municipal and/or Domestic |
| WQ0003298 | Leesville Road Baptist Church | 10,319 | Institutional |
| WQ0003299 | Town of Seaboard | 29,549,755 | Municipal and/or Domestic |
| WQ0003396 | Uniboard USA LLC | 1,283,064 | Wood Products Manufacturing |
| WQ0003405 | Town of Elm City | 53,588,722 | Municipal and/or Domestic |
| WQ0003418 | Triangle Brick Co. | 2,082,375 | Mining |
| WQ0003626 | Maxton Plant and Silgan Can Company | 765,108,237 | Food Preparation |
| WQ0003661 | Town of Faison | 55,073,622 | Municipal and/or Domestic |
| WQ0003687 | Gold Hill Airpk HOA | 310,716 | Municipal and/or Domestic |
| WQ0003717 | Parks Family Meats WWTF | 15,206 | Animal Processing and Rendering |
| WQ0003823 | Bruce Foods - Wilson, NC Processing Facility | 16,711,527 | Vegetable and Fruit Processing |
| WQ0003885 | Town of Ahoskie | 242,679,633 | Municipal and/or Domestic |
| WQ0004075 | Pender Packing WWTF | 362,007 | Animal Processing and Rendering |
| WQ0004115 | Champion Hills | 5,362,008 | Municipal and/or Domestic |
| WQ0004122 | Jordan Lake SRA - Poplar Point | 2,719,800 | Lodging/Campground/Rest Area |
| WQ0004240 | Bogue Airfield WWTF | 3,388,312 | Municipal and/or Domestic |
| WQ0004268 | Allens, Inc. - Plant #7 | 30,321,152 | Vegetable and Fruit Processing |
| WQ0004270 | AB Carter Incorporated-A B Carter | 225,924 | Industrial Machinery Manufacturing |
| WQ0004327 | Triangle Brick Co-Merry Oaks | 276,974 | Mining |
| WQ0004332 | Town of Edenton | 241,453,538 | Municipal and/or Domestic |

| Permit # | Facility Name | Volume in Gallons | Waste Source Type |
|---|---|---|---|
| WQ0004410 | Granville Family Park Incorporated | 16,937,920 | Municipal and/or Domestic |
| WQ0004438 | S T Wooten Corporation - New Bern | 139,895 | Concrete and Asphalt Production |
| WQ0004479 | Handy Sanitary District | 9,190,124 | Municipal and/or Domestic |
| WQ0004502 | Hillsborough Church Of Christ | 39,347 | Institutional |
| WQ0004508 | Emerson Waldorf School | 385,591 | Institutional |
| WQ0004696 | Carolina Village | 6,657,428 | Municipal and/or Domestic |
| WQ0004750 | Person Co BOE - Oak Lane Elementary | 464,881 | Institutional |
| WQ0004751 | Colonial Pipeline Co-Char Del | 33,807 | Oil Terminal |
| WQ0004797 | Clement Pappas NC, Inc | 19,469,050 | Vegetable and Fruit Processing |
| WQ0004888 | Chatham Co BOE - Silk Hope Elementary | 338,723 | Institutional |
| WQ0004910 | Town of Woodland WWTF | 20,184,459 | Municipal and/or Domestic |
| WQ0004967 | Alljuice Food & Beverage | 4,885,490 | Vegetable and Fruit Processing |
| WQ0004972 | Forest Lake Preserve | 1,265,933 | Municipal and/or Domestic |
| WQ0004988 | Jordan Lake SRA – Seaforth Day Use Area | 423,460 | Lodging/Campground/Rest Area |
| WQ0005134 | Wake Co Wildlife Club-Coley | 23,192 | Lodging/Campground/Rest Area |
| WQ0005150 | North End Elementary | 261,659 | Institutional |
| WQ0005192 | Murfreesboro Hatchery #5 | 516,882 | Hatchery |
| WQ0005233 | Enlisted Mens Barracks – Atlantic Airfield | 123,280 | Municipal and/or Domestic |
| WQ0005247 | Rollingview State Recreation Area | 1,918,025 | Lodging/Campground/Rest Area |
| WQ0005279 | Bingham Woods Mobile Home Park | 307,984 | Municipal and/or Domestic |
| WQ0005426 | Holly Point Recreation Area | 600,007 | Lodging/Campground/Rest Area |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | 2,978,852 | Wood Products Manufacturing |
| WQ0005563 | Morrison Family Care Homes, Inc. | 192,488 | Institutional |
| WQ0005614 | Dunbar Foods Corporation | 9,038,874 | Vegetable and Fruit Processing |
| WQ0005681 | Staley Hatchery & Feed Mill | 3,009,021 | Animal Processing and Rendering |
| WQ0005721 | Town of Pink Hill | 47,174,109 | Municipal and/or Domestic |
| WQ0005910 | Avoca Farms - Merry Hill | 6,791,776 | Chemical Manufacturing |
| WQ0006058 | Perdue Farms Incorporated - Hatchery#9 | 2,431,666 | Hatchery |
| WQ0006131 | Hyde County Board of Education - Mattamuskeet | 1,945,970 | Institutional |
| WQ0006317 | Greensboro Junction | 46,580 | Oil Terminal |
| WQ0006785 | Town of Murfreesboro | 143,888,893 | Municipal and/or Domestic |
| WQ0006932 | Professional Laboratory & Research Services | 1,632,980 | Animal Research Laboratory |
| WQ0006941 | Stoney Creek Elementary | 363,455 | Institutional |
| WQ0006946 | Reed Gold Mine | 175,292 | Mining |
| WQ0007026 | Sanford Health and Rehabilitation | 2,226,651 | Institutional |
| WQ0007102 | Wake County Board of Ed - East Wake Middle | 587,334 | Institutional |
| WQ0007143 | YMCA/Raleigh-Sea Gull Camp | 4,234,570 | Lodging/Campground/Rest Area |
| WQ0007144 | YMCA/Raleigh-Seafarer Camp | 9,370,184 | Lodging/Campground/Rest Area |
| WQ0007217 | Piney Island (BT-11) WWTF | 129,819 | Municipal and/or Domestic |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | 5,401,956 | Animal Processing and Rendering |
| WQ0007283 | Town of Pollocksville | 23,342,992 | Municipal and/or Domestic |

| Permit # | Facility Name | Volume in Gallons | Waste Source Type |
|---|---|---|---|
| WQ0007345 | Ready Mixed Concrete Company | 7,744 | Concrete and Asphalt Production |
| WQ0007396 | Prestage Farms Hatchery | 6,512,955 | Hatchery |
| WQ0007507 | Pasquotank Co-Industrial Park | 46,511,935 | Institutional |
| WQ0007521 | Goldsboro Hog Farms,Inc. – Livestock Truckwash Station | 2,540,343 | Animal Truck Wash |
| WQ0008489 | NC Prison Facility at Piney Woods | 32,803,886 | Institutional |
| WQ0008500 | C. G. White Elementary School | 442,430 | Institutional |
| WQ0009098 | James Rest Home | 709,487 | Institutional |
| WQ0009267 | Jacksonville WWTF | 1,457,961,663 | Municipal and/or Domestic |
| WQ0009589 | Chatham Co-Jordan Lake WTP | 40,275 | Lodging/Campground/Rest Area |
| WQ0009826 | Dobson Hatchery Spray Irrigation System | 1,540,055 | Hatchery |
| WQ0009849 | Badin Lake Recreation Area | 271,679 | Lodging/Campground/Rest Area |
| WQ0009946 | Askewville Elementary Surface Irrigation | 291,653 | Institutional |
| WQ0010034 | Acre Station Meat Farm-Huettmann | 2,328,078 | Animal Processing and Rendering |
| WQ0010657 | Badin Shores Resort | 7,804,305 | Municipal and/or Domestic |
| WQ0010878 | The Spiritual Center of America - West Campus | 4,235,576 | Institutional |
| WQ0011119 | Town of Colerain WWTP | 19,637,844 | Municipal and/or Domestic |
| WQ0011360 | Murphy-Brown, LLC - Tarheel Trailer Sanitation | 4,028,197 | Animal Truck Wash |
| WQ0011655 | E Carolina Council/Boy Scout | 597,495 | Lodging/Campground/Rest Area |
| WQ0011928 | Olde Sycamore WWTP | 15,735,849 | Municipal and/or Domestic |
| WQ0012690 | Mt Mitchell State Park | 31,404 | Lodging/Campground/Rest Area |
| WQ0012694 | The Spiritual Center of America - East Campus | 340,018 | Institutional |
| WQ0012696 | Pamlico River Ferry Terminal | 86,826 | Municipal and/or Domestic |
| WQ0012709 | Wells Pork & Beef Products WWTF | 275,535 | Animal Processing and Rendering |
| WQ0012796 | Lakeview Packing Company Inc | 1,951,055 | Animal Processing and Rendering |
| WQ0012901 | Bailey Foods, LLC | 765,229 | Animal Processing and Rendering |
| WQ0012948 | Pisgah Center for Wildlife Education | 872,052 | Mining |
| WQ0013181 | South Topsail Elementary School WWTF | 363,581 | Institutional |
| WQ0013348 | Bay River MSD – Oriental and Bayboro | 156,637,227 | Municipal and/or Domestic |
| WQ0013502 | Tower Apartments | 81,175 | Municipal and/or Domestic |
| WQ0013808 | Summerfield Shopping Center | 1,160,954 | Institutional |
| WQ0013921 | Rainbow Trailer Wash | 703,760 | Animal Truck Wash |
| WQ0013948 | Frame Brick Inc-Rowan | 24,678 | Other |
| WQ0014046 | Town of Stovall | 9,506,284 | Municipal and/or Domestic |
| WQ0014091 | White Oak Truck Wash | 5,980,870 | Animal Truck Wash |
| WQ0014247 | Register Truck & Trailer Wash | 3,288,680 | Animal Truck Wash |
| WQ0014391 | Builders First Source | 777,199 | Municipal and/or Domestic |
| WQ0014565 | Sanford, NC Poultry Processing Plant | 49,503,927 | Animal Processing and Rendering |
| WQ0014756 | Trinity American Corp-Randolph | 115,490 | Other |
| WQ0014785 | Sampson Co BOE - Midway Middle | 304,044 | Institutional |
| WQ0014928 | Highway 97 Truckwash | 489,042 | Animal Truck Wash |
| WQ0015010 | TDM Truck Wash | 173,787 | Animal Truck Wash |

| Permit # | Facility Name | Volume in Gallons | Waste Source Type |
|---|---|---|---|
| WQ0015030 | L L Parks Livestock Inc - Delway Site | 6,238,339 | Animal Truck Wash |
| WQ0015053 | Moyock Commons | 3,304,387 | Municipal and/or Domestic |
| WQ0015393 | Lee's Long Term Care Facility | 1,581,194 | Institutional |
| WQ0015491 | Caraway Speedway | 33,412 | Other |
| WQ0015515 | Bear Pen Village | 537,639 | Lodging/Campground/Rest Area |
| WQ0015587 | Harpers Crossroads Seafood Restaurant | 114,700 | Restaurant |
| WQ0016053 | Prestage Farms Inc-Truck Wash | 4,243,367 | Animal Truck Wash |
| WQ0016165 | City of Lexington Conjunctive-Use Wastewater Surface Irrigation System | 3,207,421 | Municipal and/or Domestic |
| WQ0016167 | Southern Produce Washwater System | 1,584,735 | Vegetable and Fruit Processing |
| WQ0016376 | S & J Villari Livestock Processing Facility | 14,603,150 | Animal Processing and Rendering |
| WQ0017530 | Highlands Cove | 2,152,133 | Municipal and/or Domestic |
| WQ0017625 | Engelhard Sanitary District | 10,114,270 | Municipal and/or Domestic |
| WQ0017824 | Uwharrie Middle School | 690,198 | Institutional |
| WQ0017912 | Central NC BSA-Camp Barnhardt | 78,204 | Lodging/Campground/Rest Area |
| WQ0018173 | Montessori School Of Raleigh | 100,818 | Institutional |
| WQ0018497 | Union Co BOE-Fairview Elementary | 1,312,060 | Institutional |
| WQ0018708 | Lake Creek Corp - Baytree Lakes | 13,379,442 | Municipal and/or Domestic |
| WQ0019095 | Colfax Furniture | 33,147 | Furniture Manufacturing |
| WQ0019573 | Rogers Grove Baptist Church | 19,345 | Institutional |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | 35,967,109 | Municipal and/or Domestic |
| WQ0019704 | Old Chatham Golf Club | 2,140,925 | Municipal and/or Domestic |
| WQ0019754 | Luck Stone - Pittsboro Plant | 69,520 | Municipal and/or Domestic |
| WQ0019782 | YMCA Camp Weaver | 576,578 | Lodging/Campground/Rest Area |
| WQ0019907 | Holly Ridge WWTF | 41,837,909 | Municipal and/or Domestic |
| WQ0020543 | KOA Campground WWTF | 210,641 | Lodging/Campground/Rest Area |
| WQ0020881 | Lake Norman State Park Swim Beach | 555,794 | Lodging/Campground/Rest Area |
| WQ0020926 | Warren Transfer Station | 110,464 | Animal Truck Wash |
| WQ0021204 | N. Chatham Vol. Fire Department - Hwy 64 | 15,763 | Institutional |
| WQ0021311 | Bladenboro Wastewater Treatment Plant | 5,680,275 | Municipal and/or Domestic |
| WQ0021352 | Westmoore Family Restauant | 643,573 | Restaurant |
| WQ0021950 | Clegg's Chapel Drip WWTS | 113,551 | Institutional |
| WQ0022384 | Contentnea Sewerage District WWTP | 1,387,508 | Municipal and/or Domestic |
| WQ0022523 | H&T Truck Wash | 461,210 | Animal Truck Wash |
| WQ0022785 | Lattisville Grove Baptist Church | 137,249 | Institutional |
| WQ0023203 | Rich Square WWTP | 323,527 | Municipal and/or Domestic |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | 2,818,520 | Animal Truck Wash |
| WQ0023511 | Woodland Heights Elementary School | 382,941 | Institutional |
| WQ0023634 | Waterside Villages | 6,867,903 | Municipal and/or Domestic |
| WQ0023896 | UNC-CH Bingham Facility | 38,570 | Institutional |
| WQ0024003 | Harvey Pt Defense Fac | 4,867,332 | Municipal and/or Domestic |
| WQ0024053 | CTS Rocky Point Facility | 82,799 | Other |

| Permit # | Facility Name | Volume in Gallons | Waste Source Type |
|---|---|---|---|
| WQ0024461 | White Cross Fire Department | 74,498 | Institutional |
| WQ0024508 | Carolina Research Center | 438,813 | Animal Research Laboratory |
| WQ0024577 | Sutton's Rest Home | 53,244 | Institutional |
| WQ0028562 | North Harnett Regional WWTP | 3,397,544 | Municipal and/or Domestic |
| WQ0028749 | Louisiana-Pacific OSB Facility | 60,418 | Wood Products Manufacturing |
| WQ0028860 | American Soil and Mulch | 23,516 | Other |
| WQ0029168 | Camp Durant WWTF | 1,773,482 | Lodging/Campground/Rest Area |
| WQ0029195 | Bradford Crossing Shopping Center | 352,148 | Municipal and/or Domestic |
| WQ0029635 | Sunset Pointe Residential Subdivision | 612,030 | Municipal and/or Domestic |
| WQ0030190 | Laurinburg Truckwash | 6,595,227 | Animal Truck Wash |
| WQ0030245 | Rosman WWTP | 2,647,320 | Municipal and/or Domestic |
| WQ0030304 | Dogwood Veterinary Hospital | 68,904 | Animal Shelter or Hospital |
| WQ0031070 | Cape Point RV Park WWTF | 292,339 | Lodging/Campground/Rest Area |
| WQ0031717 | Talley Pointe | 23,095 | Municipal and/or Domestic |
| WQ0032016 | Rose Hill Plantation | 109,168 | Municipal and/or Domestic |
| WQ0032930 | New Topsail School Complex WWTF | 2,162,344 | Institutional |
| WQ0033677 | Morganton Hatchery | 2,176,309 | Hatchery |
| WQ0033804 | Deerborne Cottages | 606 | Municipal and/or Domestic |

**Appendix D: Summary of County Results**

| County | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|
| ALAMANCE | 278,127 | 438,813 | 0 | 0 | 4,620,900 | 5,059,713 |
| ANSON | 343,568 | 41,519,362 | 0 | 0 | 262,800 | 41,782,162 |
| BEAUFORT | 613,372 | 13,544,099 | 4,262,414 | 56,854 | 294,200 | 18,257,567 |
| BERTIE | 474,422 | 26,872,049 | 0 | 0 | 0 | 26,872,049 |
| BLADEN | 568,140 | 29,068,784 | 0 | 0 | 0 | 29,068,784 |
| BRUNSWICK | 573,643 | 21,007,044 | 250,713,896 | 362,841,962 | 87,600 | 634,650,503 |
| BUNCOMBE | 422,189 | 109,774 | 0 | 0 | 0 | 109,774 |
| BURKE | 328,396 | 2,176,309 | 0 | 0 | 0 | 2,176,309 |
| CABARRUS | 233,367 | 249,583 | 0 | 0 | 700,800 | 950,383 |
| CAMDEN | 195,563 | 0 | 0 | 26,531,172 | 0 | 26,531,172 |
| CARTERET | 665,409 | 11,119,340 | 81,476,354 | 28,465,600 | 87,600 | 121,148,895 |
| CASWELL | 274,505 | 402,557 | 0 | 0 | 1,653,450 | 2,056,007 |
| CHATHAM | 453,690 | 52,293,645 | 0 | 127,519,961 | 3,447,790 | 214,291,506 |
| CHOWAN | 149,345 | 241,745,191 | 0 | 0 | 0 | 241,745,191 |
| CRAVEN | 493,362 | 158,712 | 0 | 139,202,500 | 657,000 | 140,018,212 |
| CURRITUCK | 283,934 | 16,878,084 | 85,467,700 | 93,779,219 | 0 | 196,470,495 |
| DARE | 799,122 | 0 | 68,824,097 | 2,464,228 | 0 | 71,288,325 |
| DAVIDSON | 363,215 | 4,473,354 | 0 | 42,315,781 | 306,600 | 47,095,734 |
| DAVIE | 170,591 | 202,028 | 0 | 0 | 164,250 | 366,278 |
| DUPLIN | 524,331 | 676,746,917 | 0 | 35,301 | 0 | 676,782,217 |
| DURHAM | 191,090 | 2,043,014 | 0 | 0 | 1,017,437 | 3,060,450 |
| EDGECOMBE | 324,302 | 489,042 | 0 | 0 | 0 | 489,042 |
| FRANKLIN | 316,685 | 228,959,180 | 0 | 0 | 0 | 228,959,180 |
| GASTON | 232,694 | 225,924 | 0 | 0 | 0 | 225,924 |
| GATES | 221,246 | 3,897,756 | 0 | 0 | 0 | 3,897,756 |
| GRANVILLE | 343,236 | 26,518,875 | 0 | 0 | 1,784,850 | 28,303,725 |
| GREENE | 170,454 | 2,412,264 | 0 | 0 | 0 | 2,412,264 |
| GUILFORD | 420,969 | 5,208,265 | 0 | 3,643,711 | 306,600 | 9,158,576 |
| HALIFAX | 468,009 | 20,784,308 | 0 | 95,950 | 0 | 20,880,258 |
| HARNETT | 384,759 | 118,752,144 | 0 | 193,121 | 0 | 118,945,265 |
| HENDERSON | 240,055 | 29,716,549 | 0 | 3,927,840 | 0 | 33,644,389 |
| HERTFORD | 231,307 | 549,716,764 | 0 | 0 | 0 | 549,716,764 |
| HYDE | 882,041 | 70,716,964 | 0 | 0 | 0 | 70,716,964 |
| IREDELL | 379,626 | 1,290,882 | 0 | 3,368,446 | 0 | 4,659,328 |
| JACKSON | 316,711 | 0 | 0 | 4,188,593 | 0 | 4,188,593 |
| JOHNSTON | 509,250 | 0 | 0 | 88,695,020 | 0 | 88,695,020 |
| JONES | 303,756 | 23,342,992 | 0 | 0 | 0 | 23,342,992 |
| LEE | 165,915 | 51,730,579 | 0 | 7,998,697 | 438,000 | 60,167,276 |
| LENOIR | 257,266 | 47,174,109 | 0 | 3,962,462 | 0 | 51,136,571 |
| MCDOWELL | 343,236 | 0 | 0 | 0 | 262,800 | 262,800 |
| MECKLENBURG | 351,606 | 33,807 | 0 | 0 | 328,500 | 362,307 |

| County | Acres | WW Irrigation* | High-Rate* | Reclaimed* | Single-Family** | Total |
|---|---|---|---|---|---|---|
| MONTGOMERY | 320,860 | 27,724,308 | 0 | 9,190,124 | 0 | 36,914,432 |
| MOORE | 451,347 | 24,857,237 | 0 | 0 | 490,560 | 25,347,797 |
| NASH | 347,339 | 47,599,728 | 0 | 0 | 0 | 47,599,728 |
| NORTHAMPTON | 351,932 | 167,730,606 | 0 | 0 | 0 | 167,730,606 |
| ONSLOW | 524,462 | 1,658,349,634 | 148,680,815 | 152,878,503 | 175,200 | 2,108,764,966 |
| ORANGE | 256,969 | 1,299,455 | 0 | 308,473 | 9,037,400 | 10,645,327 |
| PAMLICO | 359,453 | 170,241,981 | 1,998,228 | 0 | 0 | 172,240,209 |
| PASQUOTANK | 185,082 | 46,511,935 | 0 | 0 | 0 | 46,511,935 |
| PENDER | 563,449 | 6,740,908 | 0 | 28,830,949 | 175,200 | 35,747,056 |
| PERQUIMANS | 210,533 | 35,120,438 | 0 | 0 | 0 | 35,120,438 |
| PERSON | 258,586 | 923,604 | 0 | 0 | 3,504,000 | 4,427,604 |
| PITT | 419,068 | 1,387,508 | 0 | 9,439,411 | 131,400 | 10,958,319 |
| POLK | 152,720 | 0 | 0 | 5,825,838 | 0 | 5,825,838 |
| RANDOLPH | 505,668 | 140,034,901 | 0 | 0 | 262,800 | 140,297,701 |
| RICHMOND | 306,894 | 24,797,142 | 0 | 0 | 0 | 24,797,142 |
| ROBESON | 608,192 | 1,641,123,555 | 0 | 0 | 0 | 1,641,123,555 |
| ROWAN | 335,082 | 5,531,198 | 0 | 0 | 175,200 | 5,706,398 |
| RUTHERFORD | 361,791 | 4,627,022 | 0 | 0 | 0 | 4,627,022 |
| SAMPSON | 605,867 | 70,909,386 | 0 | 0 | 0 | 70,909,386 |
| SCOTLAND | 205,395 | 36,296,748 | 0 | 0 | 0 | 36,296,748 |
| STANLY | 258,887 | 2,965,357 | 0 | 0 | 175,200 | 3,140,557 |
| SURRY | 345,225 | 4,518,908 | 0 | 0 | 0 | 4,518,908 |
| TRANSYLVANIA | 243,393 | 6,954,514 | 0 | 0 | 0 | 6,954,514 |
| UNION | 409,365 | 17,047,909 | 0 | 0 | 1,281,150 | 18,329,059 |
| WAKE | 547,995 | 94,822,809 | 0 | 56,366,444 | 9,187,050 | 160,376,303 |
| WARREN | 283,768 | 2,589,646 | 0 | 0 | 0 | 2,589,646 |
| WASHINGTON | 265,590 | 1,535,140 | 0 | 0 | 0 | 1,535,140 |
| WATAUGA | 200,036 | 5,113,232 | 0 | 0 | 0 | 5,113,232 |
| WAYNE | 356,469 | 3,000,905 | 0 | 63,406,547 | 131,400 | 66,538,852 |
| WILSON | 239,491 | 48,296,265 | 0 | 36,687,667 | 0 | 84,983,932 |
| YADKIN | 216,143 | | 0 | 0 | 131,400 | 131,400 |
| YANCEY | 200,345 | 31,404 | 0 | 0 | 0 | 31,404 |

* Reported Volume excludes 3 WW Irrigation permits, 1 High-Rate Infiltration permit, and 16 Reclaimed Water permits did not submit the application location.
** Permitted Volume

**Appendix E: Individual Application Area Application Rate and Volume for 2010**

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0000088 | Governors Club | Reclaimed | 03 | 0.90 | 4.59 | 112,174 |
| WQ0000088 | Governors Club | Reclaimed | 12 | 2.59 | 5.37 | 377,670 |
| WQ0000088 | Governors Club | Reclaimed | 14 | 2.90 | 6.52 | 513,433 |
| WQ0000088 | Governors Club | Reclaimed | 20 | 3.80 | 5.04 | 520,059 |
| WQ0000088 | Governors Club | Reclaimed | 04 | 6.40 | 3.39 | 589,139 |
| WQ0000088 | Governors Club | Reclaimed | 23 | 3.90 | 5.92 | 626,938 |
| WQ0000088 | Governors Club | Reclaimed | 05 | 8.40 | 3.22 | 734,469 |
| WQ0000088 | Governors Club | Reclaimed | 17 | 6.04 | 4.56 | 747,894 |
| WQ0000088 | Governors Club | Reclaimed | 21 | 5.70 | 5.11 | 790,923 |
| WQ0000088 | Governors Club | Reclaimed | 27 | 3.12 | 9.51 | 805,700 |
| WQ0000088 | Governors Club | Reclaimed | 10 | 5.56 | 5.52 | 833,398 |
| WQ0000088 | Governors Club | Reclaimed | 08 | 7.38 | 4.44 | 889,770 |
| WQ0000088 | Governors Club | Reclaimed | 25 | 4.70 | 7.35 | 938,045 |
| WQ0000088 | Governors Club | Reclaimed | 01 | 5.87 | 5.89 | 938,840 |
| WQ0000088 | Governors Club | Reclaimed | 11 | 3.56 | 9.95 | 961,859 |
| WQ0000088 | Governors Club | Reclaimed | 22 | 6.00 | 6.30 | 1,026,432 |
| WQ0000088 | Governors Club | Reclaimed | 24 | 4.20 | 9.69 | 1,105,125 |
| WQ0000088 | Governors Club | Reclaimed | 09 | 7.29 | 5.65 | 1,118,444 |
| WQ0000088 | Governors Club | Reclaimed | 07 | 7.31 | 5.72 | 1,135,408 |
| WQ0000088 | Governors Club | Reclaimed | 15 | 5.97 | 7.57 | 1,227,181 |
| WQ0000088 | Governors Club | Reclaimed | 26 | 5.70 | 8.17 | 1,264,548 |
| WQ0000088 | Governors Club | Reclaimed | 16 | 8.34 | 5.97 | 1,352,006 |
| WQ0000088 | Governors Club | Reclaimed | 13 | 7.65 | 7.16 | 1,487,349 |
| WQ0000088 | Governors Club | Reclaimed | 28 | 8.60 | 7.08 | 1,653,370 |
| WQ0000088 | Governors Club | Reclaimed | 06 | 7.14 | 9.54 | 1,849,630 |
| WQ0000088 | Governors Club | Reclaimed | 02 | 9.08 | 7.57 | 1,866,466 |
| WQ0000088 | Governors Club | Reclaimed | 19 | 17.08 | 4.68 | 2,170,562 |
| WQ0000088 | Governors Club | Reclaimed | 29 | 9.52 | 12.80 | 3,308,913 |
| WQ0000088 | Governors Club | Reclaimed | 30 | 10.07 | 13.13 | 3,590,315 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0000088 | Governors Club | Reclaimed | 18 | 10.81 | 15.04 | 4,414,809 |
| WQ0000165 | Sands Villas WWTF | High-Rate Infiltration | 02 | 0.18 | 362.67 | 1,772,648 |
| WQ0000165 | Sands Villas WWTF | High-Rate Infiltration | 01 | 0.18 | 373.90 | 1,827,534 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 09 | 0.18 | 565.10 | 2,762,079 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 10 | 0.18 | 585.92 | 2,863,852 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 08 | 0.18 | 924.03 | 4,516,458 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 01 | 0.18 | 1,042.05 | 5,093,305 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 03 | 0.18 | 1,059.95 | 5,180,808 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 04 | 0.18 | 1,063.08 | 5,196,098 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 02 | 0.18 | 1,066.15 | 5,211,074 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 05 | 0.18 | 1,243.85 | 6,079,678 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 07 | 0.18 | 1,459.31 | 7,132,776 |
| WQ0000185 | Ocean Sands | High-Rate Infiltration | 06 | 0.18 | 1,539.97 | 7,527,011 |
| WQ0000193 | Village of Bald Head Island WWTF | WW Irrigation - Other | POND 4 | 1.38 | 548.73 | 20,562,512 |
| WQ0000193 | Village of Bald Head Island WWTF | WW Irrigation - Other | POND 5 | 0.32 | 251.42 | 2,184,682 |
| WQ0000224 | Point Emerald Villas WWTF | High-Rate Infiltration | SUBSURFACE FIELD | 0.10 | 508.18 | 1,379,937 |
| WQ0000224 | Point Emerald Villas WWTF | High-Rate Infiltration | ROTARY FIELD | 0.08 | 993.41 | 2,158,032 |
| WQ0000265 | Washington Correctional Center | WW Irrigation | 05 | 4.60 | 1.94 | 242,325 |
| WQ0000265 | Washington Correctional Center | WW Irrigation | 01 | 4.60 | 2.46 | 307,278 |
| WQ0000265 | Washington Correctional Center | WW Irrigation | 02 | 4.60 | 2.56 | 319,769 |
| WQ0000265 | Washington Correctional Center | WW Irrigation | 03 | 4.60 | 2.63 | 328,513 |
| WQ0000265 | Washington Correctional Center | WW Irrigation | 04 | 4.60 | 2.70 | 337,256 |
| WQ0000267 | Gates Correctional Center #4130 | WW Irrigation | 02 | 2.30 | 11.74 | 733,220 |
| WQ0000267 | Gates Correctional Center #4130 | WW Irrigation | 03 | 2.30 | 11.74 | 733,220 |
| WQ0000267 | Gates Correctional Center #4130 | WW Irrigation | 01 | 2.40 | 12.25 | 798,336 |
| WQ0000426 | Nor-Am | WW Irrigation | 01 | 2.30 | 6.52 | 407,318 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | D | 3.50 | 4.44 | 421,978 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | M1 | 0.60 | 31.02 | 505,396 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | U | 3.65 | 14.55 | 1,442,096 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | Y | 3.21 | 37.66 | 3,282,644 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | K | 9.86 | 24.71 | 6,615,886 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | T | 6.25 | 42.91 | 7,282,440 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | A | 8.20 | 39.23 | 8,735,154 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | B | 6.75 | 51.91 | 9,514,658 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | H | 14.19 | 29.42 | 11,336,094 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | V1 | 7.75 | 73.85 | 15,541,416 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | L | 24.94 | 25.67 | 17,384,440 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | S | 12.74 | 69.30 | 23,974,030 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | X2 | 11.55 | 77.33 | 24,253,163 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | W | 11.08 | 82.79 | 24,908,985 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | I | 13.58 | 69.00 | 25,444,109 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | R | 19.16 | 62.12 | 32,319,552 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | O | 19.89 | 64.21 | 34,679,740 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | C | 29.99 | 51.86 | 42,232,556 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | F | 26.53 | 59.98 | 43,209,784 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | Q | 23.80 | 67.41 | 43,565,196 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | P | 28.64 | 61.42 | 47,766,257 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | X1 | 25.83 | 68.24 | 47,863,208 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | G | 47.79 | 44.00 | 57,098,946 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | J | 58.26 | 44.08 | 69,734,943 |
| WQ0000484 | Mountaire Farms Processing Plant | WW Irrigation | N | 78.87 | 54.27 | 116,227,808 |
| WQ0000485 | Carolina by Products - Rose Hill Processing Facility | WW Irrigation | 03 | 8.44 | 13.65 | 3,128,337 |
| WQ0000485 | Carolina by Products - Rose Hill Processing Facility | WW Irrigation | 05 | 13.83 | 8.40 | 3,154,568 |
| WQ0000485 | Carolina by Products - Rose Hill Processing Facility | WW Irrigation | 07 | 5.86 | 20.87 | 3,320,920 |
| WQ0000485 | Carolina by Products - Rose Hill Processing Facility | WW Irrigation | 08 | 7.55 | 17.56 | 3,600,061 |
| WQ0000485 | Carolina by Products - Rose Hill Processing Facility | WW Irrigation | 09 | 11.43 | 13.97 | 4,335,918 |
| WQ0000485 | Carolina by Products - Rose Hill Processing Facility | WW Irrigation | 01/02 | 10.43 | 15.76 | 4,463,535 |
| WQ0000485 | Carolina by Products - Rose Hill Processing Facility | WW Irrigation | 06 | 12.90 | 12.76 | 4,469,704 |
| WQ0000488 | Jordan Lake SRA - Vista Point | WW Irrigation | 01 | 1.60 | 9.09 | 394,932 |
| WQ0000550 | Currituck County Detention Center | WW Irrigation | 01 | 2.30 | 13.49 | 842,516 |
| WQ0000550 | Currituck County Detention Center | WW Irrigation | 02 | 2.30 | 13.49 | 842,516 |
| WQ0000550 | Currituck County Detention Center | WW Irrigation | 03 | 2.30 | 13.49 | 842,516 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0000579 | Pepsi Cola Bottling-Midland D | WW Irrigation | 01 | 2.51 | 1.09 | 74,291 |
| WQ0000633 | Town of Candor WWTP | WW Irrigation | 6 | 7.00 | 24.78 | 4,710,182 |
| WQ0000633 | Town of Candor WWTP | WW Irrigation | 5 | 7.00 | 25.62 | 4,869,850 |
| WQ0000633 | Town of Candor WWTP | WW Irrigation | 1 | 7.00 | 26.04 | 4,949,683 |
| WQ0000633 | Town of Candor WWTP | WW Irrigation | 2 | 7.00 | 27.72 | 5,269,018 |
| WQ0000633 | Town of Candor WWTP | WW Irrigation | 4 | 7.00 | 29.84 | 5,671,987 |
| WQ0000633 | Town of Candor WWTP | WW Irrigation | 3 | 7.00 | 30.24 | 5,748,019 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-FW-16 | 1.34 | 7.13 | 259,437 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-T-10 | 1.11 | 8.68 | 261,626 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-T-18 | 1.25 | 7.75 | 263,057 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-T-11 | 1.62 | 7.75 | 340,922 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-T-17 | 1.58 | 8.06 | 345,804 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-FW-17 | 1.87 | 8.37 | 425,016 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-DR-01 | 1.63 | 9.61 | 425,353 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-FW-14 | 1.64 | 9.61 | 427,962 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-FW-12 | 2.35 | 6.82 | 435,202 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-FW-15 | 2.02 | 9.30 | 510,120 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-FW-11 | 1.79 | 10.54 | 512,309 |
| WQ0000731 | Lake Toxaway Co-Golf Course | WW Irrigation | 02-FW-18 | 2.64 | 7.70 | 551,992 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 10 | 7.30 | 18.81 | 3,728,636 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 03 | 7.30 | 21.95 | 4,351,067 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 09 | 7.30 | 23.35 | 4,628,584 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 02 | 7.30 | 23.87 | 4,731,661 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 01 | 7.30 | 25.91 | 5,136,043 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 07 | 7.30 | 26.72 | 5,296,606 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 04 | 7.30 | 29.80 | 5,907,143 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 06 | 7.30 | 31.97 | 6,337,294 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 05 | 7.30 | 32.33 | 6,408,656 |
| WQ0000777 | Aulander Town-WWTP/Spray Fac | WW Irrigation | 08 | 7.30 | 33.48 | 6,636,616 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 04 | 4.97 | 20.49 | 2,765,265 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 11 | 4.60 | 24.23 | 3,026,562 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0000795 | Surf City WWTF | WW Irrigation | 08 | 4.83 | 33.00 | 4,328,122 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 12 | 6.25 | 25.57 | 4,339,594 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 13 | 5.80 | 29.75 | 4,685,472 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 05 | 5.55 | 63.42 | 9,557,793 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 15 | 6.61 | 53.62 | 9,624,245 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 07 | 5.75 | 66.94 | 10,451,820 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 09 | 5.30 | 74.61 | 10,737,701 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 16 | 5.05 | 82.04 | 11,250,075 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 06 | 5.30 | 81.52 | 11,732,172 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 10 | 5.21 | 89.45 | 12,654,834 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 03 | 5.98 | 78.93 | 12,816,861 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 02 | 5.50 | 97.95 | 14,628,693 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 01 | 5.50 | 100.37 | 14,990,116 |
| WQ0000795 | Surf City WWTF | WW Irrigation | 14 | 6.22 | 95.74 | 16,170,453 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 12 | 3.00 | 2.67 | 217,506 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 09 | 2.00 | 5.01 | 272,086 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 11 | 4.70 | 4.27 | 544,959 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 10 | 5.10 | 4.95 | 685,510 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 13 | 6.60 | 7.41 | 1,328,007 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 04 | 13.00 | 4.37 | 1,542,635 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 08 | 23.36 | 2.71 | 1,719,018 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 06 | 12.16 | 6.66 | 2,199,106 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 03 | 13.00 | 6.41 | 2,262,767 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 01A | 6.50 | 13.05 | 2,303,362 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 02A | 6.50 | 13.05 | 2,303,362 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 07 | 12.28 | 7.07 | 2,357,524 |
| WQ0000798 | Shallotte WWTF | WW Irrigation | 05 | 13.00 | 8.67 | 3,060,560 |
| WQ0000819 | Plantation Harbor | WW Irrigation | 01 | 23.92 | 5.52 | 3,585,408 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 09B-B1 | 1.75 | 8.07 | 383,486 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 09B-A1 | 4.25 | 4.68 | 540,099 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 09B-A2 | 3.85 | 7.72 | 807,080 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 09B-B2 | 11.01 | 4.06 | 1,213,813 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 12 | 17.78 | 6.08 | 2,935,443 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 07A | 6.12 | 18.27 | 3,036,186 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 02C | 9.16 | 34.02 | 8,461,905 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 13 | 23.26 | 19.30 | 12,190,048 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 07 | 9.57 | 51.21 | 13,307,764 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 09C | 21.48 | 24.45 | 14,261,051 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 01C | 11.48 | 48.48 | 15,112,729 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 08C | 10.75 | 52.28 | 15,260,980 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 05 | 18.03 | 33.33 | 16,317,898 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 10C | 19.80 | 33.81 | 18,178,111 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 11 | 26.13 | 29.35 | 20,825,043 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 02A | 18.61 | 43.57 | 22,017,719 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 10A | 15.19 | 55.74 | 22,991,278 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 02B | 10.94 | 79.94 | 23,747,607 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 10B | 31.42 | 29.63 | 25,279,950 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 08A | 30.38 | 31.40 | 25,903,342 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 09A | 30.38 | 39.39 | 32,494,670 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 01A | 26.75 | 47.45 | 34,466,595 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 03 | 15.66 | 89.36 | 37,999,099 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 08B | 34.84 | 41.29 | 39,062,624 |
| WQ0000884 | Mt Olive Turkey Processing Facility | WW Irrigation | 01B | 74.59 | 28.62 | 57,968,040 |
| WQ0000889 | PCS Phosphate Co-Onsite Fac | High-Rate Infiltration | 03 | 0.15 | 342.67 | 1,395,744 |
| WQ0000889 | PCS Phosphate Co-Onsite Fac | High-Rate Infiltration | 01 | 0.15 | 349.60 | 1,423,965 |
| WQ0000889 | PCS Phosphate Co-Onsite Fac | High-Rate Infiltration | 02 | 0.15 | 354.20 | 1,442,706 |
| WQ0000910 | The Village at Nags Head | High-Rate Infiltration | 2A | 0.29 | 184.72 | 1,454,621 |
| WQ0000910 | The Village at Nags Head | High-Rate Infiltration | 2C | 0.29 | 184.72 | 1,454,621 |
| WQ0000910 | The Village at Nags Head | High-Rate Infiltration | 1A | 0.29 | 369.44 | 2,909,243 |
| WQ0000948 | Jackson Town-Spray/Res &Bus | WW Irrigation | 02 | 12.40 | 26.48 | 8,916,164 |
| WQ0000948 | Jackson Town-Spray/Res &Bus | WW Irrigation | 03 | 15.55 | 23.00 | 9,711,730 |
| WQ0000948 | Jackson Town-Spray/Res &Bus | WW Irrigation | 01 | 11.32 | 35.21 | 10,823,079 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0000948 | Jackson Town-Spray/Res &Bus | WW Irrigation | 05 | 11.59 | 35.18 | 11,071,785 |
| WQ0000948 | Jackson Town-Spray/Res &Bus | WW Irrigation | 04 | 12.06 | 35.21 | 11,530,595 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 02 | 3.13 | 14.39 | 1,223,048 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 11 | 3.83 | 14.17 | 1,473,693 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 13 | 4.79 | 15.70 | 2,042,084 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 12 | 5.52 | 13.79 | 2,067,006 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 09 | 5.89 | 13.24 | 2,117,589 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 06 | 5.60 | 14.32 | 2,177,556 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 07 | 5.62 | 14.58 | 2,225,011 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 08 | 5.95 | 14.35 | 2,318,501 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 04 | 5.84 | 15.28 | 2,423,118 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 01 | 5.99 | 15.49 | 2,519,513 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 10 | 7.85 | 14.33 | 3,054,599 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 19 | 7.89 | 14.79 | 3,168,718 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 05 | 8.04 | 15.25 | 3,329,387 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 03 | 8.38 | 15.12 | 3,440,600 |
| WQ0000957 | Valley Protein Inc-Wadesboro | WW Irrigation | 14 | 19.53 | 14.97 | 7,938,938 |
| WQ0000961 | Davie County Storage Facility | WW Irrigation | 01 | 3.00 | 2.48 | 202,028 |
| WQ0000986 | Island Beach & Racquet Club Condominiums/Sheraton Atlantic Beach Oceanfront Hotel | High-Rate Infiltration | 01 | 0.10 | 39.16 | 106,330 |
| WQ0000986 | Island Beach & Racquet Club Condominiums/Sheraton Atlantic Beach Oceanfront Hotel | High-Rate Infiltration | 02 | 0.16 | 60.36 | 262,266 |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | WW Irrigation | 2 - ZONE 2 | 0.92 | 7.80 | 194,859 |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | WW Irrigation | 2 - ZONE 6 | 1.62 | 4.74 | 208,512 |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | WW Irrigation | 2 - ZONE 1 | 1.14 | 7.80 | 241,456 |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | WW Irrigation | 2 - ZONE 5 | 1.09 | 9.40 | 278,223 |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | WW Irrigation | 2 - ZONE 4 | 1.44 | 7.80 | 304,997 |
| WQ0001077 | Innospec Performance Chemicals U.S. Co. | WW Irrigation | 01 | 4.00 | 4.68 | 508,328 |
| WQ0001173 | Prestage Foods, Inc. | WW Irrigation | 01 | 47.00 | 55.14 | 70,375,056 |
| WQ0001173 | Prestage Foods, Inc. | WW Irrigation | 02 | 98.00 | 33.93 | 90,299,785 |
| WQ0001189 | Rollingview Marina | WW Irrigation | 04 | 0.29 | 1.61 | 12,678 |
| WQ0001189 | Rollingview Marina | WW Irrigation | 02 | 0.29 | 1.66 | 13,072 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0001189 | Rollingview Marina | WW Irrigation | 05 | 0.29 | 1.73 | 13,623 |
| WQ0001189 | Rollingview Marina | WW Irrigation | 01 | 0.29 | 1.88 | 14,805 |
| WQ0001189 | Rollingview Marina | WW Irrigation | 03 | 0.29 | 2.28 | 17,954 |
| WQ0001203 | Ponderosa Subdivision Wastewater Spray Irrigation | WW Irrigation | 04 | 1.32 | 13.06 | 468,082 |
| WQ0001203 | Ponderosa Subdivision Wastewater Spray Irrigation | WW Irrigation | 01 | 1.47 | 13.38 | 533,967 |
| WQ0001203 | Ponderosa Subdivision Wastewater Spray Irrigation | WW Irrigation | 03 | 1.54 | 13.35 | 558,223 |
| WQ0001203 | Ponderosa Subdivision Wastewater Spray Irrigation | WW Irrigation | 02 | 1.42 | 17.22 | 664,142 |
| WQ0001203 | Ponderosa Subdivision Wastewater Spray Irrigation | WW Irrigation | 05 | 1.61 | 15.31 | 669,110 |
| WQ0001284 | Town of Conway WWTP | WW Irrigation | A | 2.39 | 136.77 | 8,876,201 |
| WQ0001284 | Town of Conway WWTP | WW Irrigation | D | 4.50 | 89.98 | 10,995,042 |
| WQ0001284 | Town of Conway WWTP | WW Irrigation | B | 4.50 | 97.29 | 11,888,282 |
| WQ0001284 | Town of Conway WWTP | WW Irrigation | C | 4.50 | 98.19 | 11,998,257 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 07 | 1.92 | 22.11 | 1,152,732 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 08 | 2.16 | 21.84 | 1,280,987 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 09 | 2.16 | 22.19 | 1,301,516 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 06 | 2.18 | 22.13 | 1,310,015 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 04 | 2.73 | 22.16 | 1,642,747 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 03 | 2.82 | 22.02 | 1,686,183 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 02 | 2.86 | 22.20 | 1,724,080 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 05 | 3.29 | 22.28 | 1,990,442 |
| WQ0001536 | Perdue Grain and Oilseed, LLC | WW Irrigation | 01 | 3.35 | 22.14 | 2,014,006 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 05 | 5.14 | 30.94 | 4,318,390 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 10 | 5.88 | 30.29 | 4,836,319 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 07 | 6.29 | 33.97 | 5,802,092 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 13 | 5.57 | 39.41 | 5,960,738 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 19 | 5.69 | 39.59 | 6,116,967 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 18 | 5.95 | 37.90 | 6,123,427 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 15 | 6.10 | 38.13 | 6,315,897 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 20 | 5.68 | 41.84 | 6,453,249 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 11 | 5.54 | 43.94 | 6,610,103 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 16 | 6.31 | 38.71 | 6,632,709 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 08 | 5.84 | 42.39 | 6,722,250 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 12 | 5.99 | 42.02 | 6,834,728 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 09 | 5.77 | 44.91 | 7,036,509 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 21 | 6.28 | 42.48 | 7,244,068 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 14 | 5.73 | 46.79 | 7,280,246 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 17 | 6.73 | 42.49 | 7,764,977 |
| WQ0001602 | Town of Winton WWTP | WW Irrigation | 04 | 13.15 | 25.82 | 9,219,776 |
| WQ0001664 | Belvedere Plantation WWTF | Reclaimed | 02 | 28.25 | 12.04 | 9,235,987 |
| WQ0001664 | Belvedere Plantation WWTF | Reclaimed | 01 | 30.50 | 19.44 | 16,100,319 |
| WQ0001755 | Townsends Processing Facility | WW Irrigation | RED 3 | 10.68 | 15.24 | 4,420,878 |
| WQ0001755 | Townsends Processing Facility | WW Irrigation | BLUE 1 | 14.04 | 13.64 | 5,201,342 |
| WQ0001755 | Townsends Processing Facility | WW Irrigation | BLUE 3 | 16.24 | 12.99 | 5,729,285 |
| WQ0001755 | Townsends Processing Facility | WW Irrigation | BLUE 2 | 15.90 | 16.01 | 6,913,231 |
| WQ0001755 | Townsends Processing Facility | WW Irrigation | RED 2 | 14.41 | 20.92 | 8,185,072 |
| WQ0001755 | Townsends Processing Facility | WW Irrigation | RED 1 | 17.83 | 19.89 | 9,630,445 |
| WQ0001817 | Albermarle Plantation | WW Irrigation | 15 | 6.53 | 40.39 | 7,161,853 |
| WQ0001817 | Albermarle Plantation | WW Irrigation | 13 | 7.56 | 52.43 | 10,763,166 |
| WQ0001817 | Albermarle Plantation | WW Irrigation | 14 | 8.82 | 46.19 | 11,062,542 |
| WQ0001868 | Severn Town-WWTF/Spray Sys | WW Irrigation | 02 | 2.50 | 35.68 | 2,422,162 |
| WQ0001868 | Severn Town-WWTF/Spray Sys | WW Irrigation | 03 | 2.00 | 52.27 | 2,838,709 |
| WQ0001868 | Severn Town-WWTF/Spray Sys | WW Irrigation | 01 | 2.50 | 46.86 | 3,181,125 |
| WQ0001868 | Severn Town-WWTF/Spray Sys | WW Irrigation | 04 | 2.50 | 51.31 | 3,483,216 |
| WQ0001868 | Severn Town-WWTF/Spray Sys | WW Irrigation | 05 | 3.80 | 39.06 | 4,030,456 |
| WQ0002001 | Waters Edge POA-Spray Systm | WW Irrigation | 01 | 3.50 | 14.98 | 1,423,699 |
| WQ0002001 | Waters Edge POA-Spray Systm | WW Irrigation | 02 | 3.50 | 14.98 | 1,423,699 |
| WQ0002004 | Bass Farms Inc-Bass Fms Saus | WW Irrigation | 03 | 0.46 | 10.50 | 131,155 |
| WQ0002004 | Bass Farms Inc-Bass Fms Saus | WW Irrigation | 02 | 0.51 | 10.10 | 139,872 |
| WQ0002004 | Bass Farms Inc-Bass Fms Saus | WW Irrigation | 01 | 0.48 | 11.50 | 149,892 |
| WQ0002004 | Bass Farms Inc-Bass Fms Saus | WW Irrigation | 04 | 2.24 | 2.90 | 176,394 |
| WQ0002004 | Bass Farms Inc-Bass Fms Saus | WW Irrigation | 05 | 2.24 | 2.90 | 176,394 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L6 | 8.60 | 7.76 | 1,812,168 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L5 | 10.52 | 8.34 | 2,382,430 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | 6-A | 16.20 | 6.70 | 2,947,326 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | 6-B | 6.70 | 18.55 | 3,374,870 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | 5-B | 6.90 | 27.35 | 5,124,421 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L10 | 12.04 | 18.00 | 5,884,877 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L7 | 12.04 | 19.50 | 6,375,283 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L4 | 12.04 | 19.68 | 6,434,949 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | 5-A | 6.90 | 34.91 | 6,540,897 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L1 | 12.04 | 20.25 | 6,620,486 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L2 | 12.04 | 24.00 | 7,846,502 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L8 | 12.04 | 24.75 | 8,091,706 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L3 | 12.04 | 25.37 | 8,294,407 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | L9 | 12.04 | 25.50 | 8,336,909 |
| WQ0002005 | Rose Hill Fresh / IQF Chicken Processing Plant | WW Irrigation | CENTER PIVOT (4) | 23.00 | 45.78 | 28,591,834 |
| WQ0002012 | Georgia-Pacific Chemicals LLC | WW Irrigation | 01 | 7.56 | 26.25 | 5,389,179 |
| WQ0002015 | Oak Hill Fellowship Ctr-Camp/ | WW Irrigation | 01 | 1.07 | 2.57 | 74,672 |
| WQ0002042 | Clarion Hotel-Nags Head Beach | High-Rate Infiltration | 2 | 0.03 | 650.70 | 530,077 |
| WQ0002042 | Clarion Hotel-Nags Head Beach | High-Rate Infiltration | 1 | 0.03 | 689.59 | 561,762 |
| WQ0002052 | Milliken Incorporated-Golden Valley | WW Irrigation | 01 | 12.25 | 13.91 | 4,627,022 |
| WQ0002056 | Gatlin-Ramsey Mobile Home Park WWTF | WW Irrigation | 01 | 18.60 | 6.75 | 3,407,200 |
| WQ0002075 | Enterprise Rendering Company WWTF | WW Irrigation | 02 | 4.80 | 0.57 | 73,877 |
| WQ0002075 | Enterprise Rendering Company WWTF | WW Irrigation | 01 | 4.90 | 1.93 | 257,064 |
| WQ0002075 | Enterprise Rendering Company WWTF | WW Irrigation | 5B | 12.30 | 3.48 | 1,162,312 |
| WQ0002075 | Enterprise Rendering Company WWTF | WW Irrigation | 03 | 11.70 | 4.39 | 1,393,900 |
| WQ0002096 | Pinewood Manor Rest Home- Spr | WW Irrigation | 03 | 1.35 | 14.60 | 535,211 |
| WQ0002096 | Pinewood Manor Rest Home- Spr | WW Irrigation | 04 | 1.50 | 13.82 | 562,908 |
| WQ0002096 | Pinewood Manor Rest Home- Spr | WW Irrigation | 05 | 1.94 | 11.57 | 609,500 |
| WQ0002096 | Pinewood Manor Rest Home- Spr | WW Irrigation | 02 | 1.33 | 17.18 | 620,459 |
| WQ0002096 | Pinewood Manor Rest Home- Spr | WW Irrigation | 01 | 1.75 | 13.37 | 635,342 |
| WQ0002121 | Sandling Beach - Falls Lake State Recreation Area | WW Irrigation | LLS | 5.00 | 2.26 | 306,572 |
| WQ0002121 | Sandling Beach - Falls Lake State Recreation Area | WW Irrigation | UPR | 5.00 | 2.60 | 352,327 |

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| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0002128 | Pebble Beach Condos WWTF | High-Rate Infiltration | 02 | 0.09 | 1,089.52 | 2,662,657 |
| WQ0002128 | Pebble Beach Condos WWTF | High-Rate Infiltration | 01 | 0.09 | 1,213.40 | 2,965,404 |
| WQ0002161 | Carolina Friends School-Cfs | WW Irrigation | 01 | 0.80 | 14.20 | 308,473 |
| WQ0002204 | Morrison Correctional Institution | WW Irrigation | A2 | 2.44 | 52.20 | 3,458,587 |
| WQ0002204 | Morrison Correctional Institution | WW Irrigation | A6 | 2.44 | 52.21 | 3,459,250 |
| WQ0002204 | Morrison Correctional Institution | WW Irrigation | A5 | 2.44 | 52.43 | 3,473,826 |
| WQ0002204 | Morrison Correctional Institution | WW Irrigation | A3 | 2.44 | 53.60 | 3,551,346 |
| WQ0002204 | Morrison Correctional Institution | WW Irrigation | A1 | 2.44 | 54.16 | 3,588,450 |
| WQ0002204 | Morrison Correctional Institution | WW Irrigation | A7 | 2.44 | 54.66 | 3,621,578 |
| WQ0002204 | Morrison Correctional Institution | WW Irrigation | A4 | 2.44 | 55.00 | 3,644,105 |
| WQ0002284 | Kinnakeet Shores | Reclaimed | A10A | 0.59 | 0.75 | 12,016 |
| WQ0002284 | Kinnakeet Shores | High-Rate Infiltration | A1A | 0.85 | 2.23 | 51,471 |
| WQ0002314 | Windward Dunes WWTF | High-Rate Infiltration | 01 | 0.06 | 320.95 | 522,903 |
| WQ0002314 | Windward Dunes WWTF | High-Rate Infiltration | 02 | 0.06 | 348.34 | 567,543 |
| WQ0002410 | Key Gilbert-Key Packing | WW Irrigation | 001 | 1.40 | 4.77 | 181,488 |
| WQ0002428 | Townsends Hatchery | WW Irrigation | A | 1.17 | 2.92 | 92,770 |
| WQ0002428 | Townsends Hatchery | WW Irrigation | E | 1.69 | 4.34 | 199,166 |
| WQ0002428 | Townsends Hatchery | WW Irrigation | B | 2.60 | 2.92 | 206,155 |
| WQ0002428 | Townsends Hatchery | WW Irrigation | C | 1.90 | 6.01 | 310,075 |
| WQ0002428 | Townsends Hatchery | WW Irrigation | D | 2.13 | 6.26 | 362,070 |
| WQ0002428 | Townsends Hatchery | WW Irrigation | F | 3.75 | 4.00 | 407,314 |
| WQ0002503 | Frit Car - Bridgeton Facility | WW Irrigation | 01 | 1.10 | 0.63 | 18,818 |
| WQ0002519 | Holiday Island Poa-WWTP/Campg | WW Irrigation | 3 | 0.19 | 33.62 | 173,473 |
| WQ0002519 | Holiday Island Poa-WWTP/Campg | WW Irrigation | 2 | 0.19 | 93.91 | 484,500 |
| WQ0002519 | Holiday Island Poa-WWTP/Campg | WW Irrigation | 1 | 0.19 | 117.76 | 607,571 |
| WQ0002520 | Town of Bath Wastewater Reclamation Facility | WW Irrigation | 03 | 3.10 | 11.53 | 970,576 |
| WQ0002520 | Town of Bath Wastewater Reclamation Facility | WW Irrigation | 04 | 3.30 | 14.00 | 1,254,528 |
| WQ0002520 | Town of Bath Wastewater Reclamation Facility | WW Irrigation | IB-1 | 7.10 | 7.04 | 1,357,280 |
| WQ0002520 | Town of Bath Wastewater Reclamation Facility | WW Irrigation | WOODS | 6.10 | 14.84 | 2,458,115 |
| WQ0002520 | Town of Bath Wastewater Reclamation Facility | WW Irrigation | IR-1 | 19.61 | 8.37 | 4,456,988 |
| WQ0002560 | Bailey Wastewater Treatment Plant | WW Irrigation | 01 | 8.87 | 28.62 | 6,893,371 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0002560 | Bailey Wastewater Treatment Plant | WW Irrigation | 02 | 4.07 | 155.30 | 17,163,437 |
| WQ0002571 | Village Oak Mobile Home Park WWTF | WW Irrigation | A | 1.23 | 41.41 | 1,383,085 |
| WQ0002621 | Salemburg Town-Spray Irr/WWT | WW Irrigation | 04 | 3.10 | 30.94 | 2,604,476 |
| WQ0002621 | Salemburg Town-Spray Irr/WWT | WW Irrigation | 05 | 3.40 | 36.36 | 3,356,921 |
| WQ0002621 | Salemburg Town-Spray Irr/WWT | WW Irrigation | 02 | 3.30 | 38.08 | 3,412,316 |
| WQ0002621 | Salemburg Town-Spray Irr/WWT | WW Irrigation | 03 | 3.20 | 40.25 | 3,497,472 |
| WQ0002621 | Salemburg Town-Spray Irr/WWT | WW Irrigation | 01 | 3.00 | 44.28 | 3,607,175 |
| WQ0002638 | Town of Angier Wastewater Irrigation System | WW Irrigation | 01 | 6.21 | 0.16 | 26,980 |
| WQ0002638 | Town of Angier Wastewater Irrigation System | WW Irrigation | 05A | 0.71 | 45.92 | 885,317 |
| WQ0002638 | Town of Angier Wastewater Irrigation System | WW Irrigation | 04A | 1.92 | 28.96 | 1,509,865 |
| WQ0002638 | Town of Angier Wastewater Irrigation System | WW Irrigation | 02 | 6.89 | 20.09 | 3,758,699 |
| WQ0002638 | Town of Angier Wastewater Irrigation System | WW Irrigation | 03A | 6.30 | 34.72 | 5,939,620 |
| WQ0002648 | Seagrove-Ulah Metropolitan Water District Land Application System | WW Irrigation | 01 | 40.00 | 3.77 | 4,094,866 |
| WQ0002665 | Jordan Lake SRA - Parkers Creek | WW Irrigation | 02 | 12.30 | 0.42 | 140,279 |
| WQ0002665 | Jordan Lake SRA - Parkers Creek | WW Irrigation | 01 | 12.30 | 5.24 | 1,750,148 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 03A | 19.37 | 1.12 | 589,096 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 03B | 17.51 | 1.24 | 589,585 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 06B | 18.77 | 1.83 | 932,725 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 04A | 19.65 | 2.52 | 1,344,626 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 07A | 19.11 | 3.50 | 1,816,214 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 05B | 20.76 | 3.83 | 2,159,059 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 07B | 19.39 | 4.13 | 2,174,534 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 05A | 19.15 | 4.70 | 2,444,021 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 01A | 19.49 | 9.74 | 5,154,769 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 02B | 20.30 | 10.00 | 5,512,320 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 01B | 20.06 | 10.70 | 5,828,450 |
| WQ0002708 | Wrenn Road Spray Irrigation Facility | WW Irrigation | 02A | 19.27 | 11.88 | 6,216,365 |
| WQ0002715 | Perdue Farms Inc-Eagle Sprin | WW Irrigation | 01 | 1.30 | 8.79 | 310,292 |
| WQ0002715 | Perdue Farms Inc-Eagle Sprin | WW Irrigation | 02 | 1.30 | 8.79 | 310,292 |
| WQ0002715 | Perdue Farms Inc-Eagle Sprin | WW Irrigation | 03 | 1.30 | 12.43 | 438,786 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0002715 | Perdue Farms Inc-Eagle Sprin | WW Irrigation | 04 | 1.30 | 12.43 | 438,786 |
| WQ0002766 | Town of Gibson WWTP | WW Irrigation | #2 | 3.00 | 64.66 | 5,267,388 |
| WQ0002766 | Town of Gibson WWTP | WW Irrigation | #4 | 3.40 | 65.13 | 6,013,099 |
| WQ0002766 | Town of Gibson WWTP | WW Irrigation | #3 | 4.20 | 65.40 | 7,458,739 |
| WQ0002766 | Town of Gibson WWTP | WW Irrigation | #1 | 7.20 | 56.07 | 10,962,294 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | EJ9 | 6.60 | 0.61 | 109,323 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | EJ6 | 7.70 | 0.80 | 167,270 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | PF2 | 13.30 | 1.50 | 541,728 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W3 | 7.40 | 4.42 | 888,162 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G6B | 7.50 | 4.61 | 938,859 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W10 | 16.10 | 2.21 | 966,177 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | J1 | 12.90 | 3.77 | 1,320,594 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | PF3 | 11.60 | 4.39 | 1,382,805 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G7 | 7.90 | 6.56 | 1,407,244 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | VF4 | 7.50 | 8.41 | 1,712,757 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W6 | 10.50 | 6.18 | 1,762,042 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G5 | 5.30 | 15.41 | 2,217,772 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | EJ7 | 17.00 | 5.05 | 2,331,195 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | GF1 | 9.40 | 10.66 | 2,720,968 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W2 | 5.90 | 17.41 | 2,789,261 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W4 | 16.00 | 6.42 | 2,789,288 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W1 | 8.70 | 11.84 | 2,797,109 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | GF4 | 33.10 | 3.43 | 3,082,908 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | VF2 | 48.00 | 2.65 | 3,454,025 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W7 | 9.60 | 13.48 | 3,513,982 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | GF2 | 20.90 | 6.36 | 3,609,456 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | S2 | 14.60 | 9.19 | 3,643,399 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | S1 | 20.90 | 7.19 | 4,080,502 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | GF3 | 15.40 | 9.93 | 4,152,488 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | VF1 | 46.90 | 3.71 | 4,724,819 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | J2 | 28.80 | 6.27 | 4,903,412 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | VF3 | 16.60 | 11.59 | 5,224,322 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | S3 | 26.50 | 10.66 | 7,670,814 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G4C | 26.60 | 12.28 | 8,869,893 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | EJ8 | 33.60 | 9.79 | 8,932,239 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G4A | 31.50 | 13.88 | 11,872,397 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G2 | 40.00 | 12.49 | 13,566,281 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G4B | 36.90 | 16.01 | 16,041,910 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | W9 | 38.80 | 15.58 | 16,414,874 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | G1 | 55.30 | 21.10 | 31,684,435 |
| WQ0002806 | Novozymes North America Inc - Franklin County | WW Irrigation | N1 | 71.60 | 23.98 | 46,623,040 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | 3 | 0.06 | 1,211.40 | 1,973,686 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | POND 1 | 0.67 | 188.59 | 3,431,012 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | 4 | 0.12 | 1,850.89 | 6,031,143 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | 5 | 0.06 | 3,903.43 | 6,359,699 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | 7-A | 0.17 | 1,459.29 | 6,736,437 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | POND 2 | 1.43 | 188.59 | 7,322,905 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | 6 | 0.21 | 1,945.68 | 11,095,033 |
| WQ0002829 | KDHWWTP | High-Rate Infiltration | 7-B | 0.17 | 3,144.12 | 14,513,970 |
| WQ0002838 | Deerhurst Mobile Home Park | WW Irrigation | D | 2.58 | 38.10 | 2,669,352 |
| WQ0002838 | Deerhurst Mobile Home Park | WW Irrigation | C | 2.46 | 40.80 | 2,725,355 |
| WQ0002838 | Deerhurst Mobile Home Park | WW Irrigation | A | 3.08 | 37.30 | 3,119,426 |
| WQ0002838 | Deerhurst Mobile Home Park | WW Irrigation | B | 3.35 | 45.34 | 4,124,073 |
| WQ0002844 | Triangle Brick Company - South Plant | WW Irrigation | 01 | 0.75 | 1.55 | 31,567 |
| WQ0002848 | Ball's Landromat-Spray Irrig | WW Irrigation | 01 | 2.00 | 0.95 | 51,430 |
| WQ0002857 | Matkins Meat Processors Inc- | WW Irrigation | 03 | 3.00 | 0.48 | 39,102 |
| WQ0002927 | Bonsal Chip Mill | WW Irrigation | 01 | 0.42 | 4.62 | 52,690 |
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 1/1 | 6.59 | 6.77 | 1,210,754 |
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 1/2 | 10.87 | 8.54 | 2,519,546 |
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 2/4 | 6.87 | 72.33 | 13,493,904 |
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 2/1 | 9.92 | 55.11 | 14,843,662 |
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 2/3 | 9.10 | 61.62 | 15,227,290 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 2/6 | 8.99 | 62.62 | 15,285,632 |
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 2/2 | 9.10 | 62.71 | 15,496,386 |
| WQ0002994 | Carolina Lakes WWTF | WW Irrigation | 2/5 | 8.99 | 66.03 | 16,118,071 |
| WQ0003044 | Dunescape Villas WWTF | High-Rate Infiltration | 01 | 0.08 | 386.60 | 839,837 |
| WQ0003044 | Dunescape Villas WWTF | High-Rate Infiltration | 02 | 0.08 | 386.60 | 839,837 |
| WQ0003044 | Dunescape Villas WWTF | High-Rate Infiltration | 03 | 0.08 | 386.60 | 839,837 |
| WQ0003067 | Ocean Bay Villas & Ocean Glen Condos | High-Rate Infiltration | 02 | 0.07 | 164.84 | 313,336 |
| WQ0003067 | Ocean Bay Villas & Ocean Glen Condos | High-Rate Infiltration | 01 | 0.07 | 193.62 | 368,033 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 03 | 20.90 | 22.14 | 12,564,994 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 06 | 15.90 | 29.64 | 12,797,163 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 04 | 17.10 | 34.22 | 15,889,656 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 05 | 18.70 | 32.45 | 16,477,628 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 07 | 23.00 | 27.56 | 17,212,559 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 08 | 22.00 | 29.70 | 17,742,610 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 01 | 21.00 | 34.20 | 19,502,208 |
| WQ0003090 | Liberty Town-Land Appl Epa | WW Irrigation | 02 | 19.70 | 37.21 | 19,905,096 |
| WQ0003271 | Hestron Park WWTF | High-Rate Infiltration | 02 | 0.18 | 1,468.55 | 7,177,939 |
| WQ0003271 | Hestron Park WWTF | High-Rate Infiltration | 01 | 0.18 | 1,616.53 | 7,901,253 |
| WQ0003298 | Leesville Rd Baptist Church Surface Irrigation System | WW Irrigation | 01 | 0.50 | 0.76 | 10,319 |
| WQ0003299 | Seaboard Town-WWTF/Spray | WW Irrigation | 02 | 11.70 | 30.97 | 9,839,328 |
| WQ0003299 | Seaboard Town-WWTF/Spray | WW Irrigation | 03 | 11.70 | 30.97 | 9,839,328 |
| WQ0003299 | Seaboard Town-WWTF/Spray | WW Irrigation | 01 | 11.70 | 31.07 | 9,871,099 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 03 | 2.27 | 0.33 | 20,341 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 08 | 2.83 | 0.93 | 71,467 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 04 | 4.58 | 0.71 | 88,300 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 07 | 5.65 | 0.67 | 102,793 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 05 | 4.63 | 1.13 | 142,069 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 02 | 3.64 | 1.68 | 166,054 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 09 | 4.58 | 1.75 | 217,642 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 06 | 5.67 | 1.43 | 220,170 |
| WQ0003396 | Uniboard USA LLC | WW Irrigation | 10 | 5.64 | 1.66 | 254,229 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | PULL 1 | 8.45 | 0.98 | 224,865 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | PULL 2 | 8.21 | 1.02 | 227,395 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | PULL 3 | 8.31 | 2.47 | 557,361 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | 1 | 5.00 | 44.80 | 6,082,560 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | 7 | 8.75 | 26.69 | 6,341,544 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | 6 | 7.30 | 38.79 | 7,689,198 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | 4 | 4.27 | 66.33 | 7,690,884 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | 2 | 4.77 | 60.51 | 7,837,615 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | 3 | 4.96 | 60.02 | 8,083,809 |
| WQ0003405 | Elm City Spray Irrigation WWTP | WW Irrigation | 5 | 7.40 | 44.06 | 8,853,492 |
| WQ0003418 | Triangle Brick Co-Indust/WWTP | WW Irrigation | 01A | 0.16 | 144.88 | 629,458 |
| WQ0003418 | Triangle Brick Co-Indust/WWTP | WW Irrigation | 01B | 0.62 | 86.30 | 1,452,917 |
| WQ0003437 | Queens Court WWTF | High-Rate Infiltration | 01 | 0.03 | 811.02 | 660,679 |
| WQ0003437 | Queens Court WWTF | High-Rate Infiltration | 02 | 0.03 | 811.02 | 660,679 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | E | 54.59 | 0.14 | 207,529 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-4 | 1.85 | 61.92 | 3,110,578 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-9 | 5.75 | 24.40 | 3,809,746 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-10 | 4.68 | 31.92 | 4,056,459 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-11 | 3.64 | 50.81 | 5,022,142 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-8 | 4.78 | 39.24 | 5,093,253 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-1 | 3.90 | 70.65 | 7,481,956 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-3 | 4.44 | 62.42 | 7,525,669 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-7 | 5.37 | 65.08 | 9,489,869 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-5 | 6.26 | 58.33 | 9,915,273 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-6 | 5.62 | 66.57 | 10,159,054 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | J-2 | 4.81 | 164.37 | 21,468,713 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | F | 39.49 | 46.77 | 50,152,535 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | G | 33.35 | 82.14 | 74,385,609 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | A | 83.35 | 40.97 | 92,727,799 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | D | 35.34 | 102.73 | 98,583,042 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | H | 62.38 | 63.11 | 106,901,041 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | I | 30.00 | 152.14 | 123,937,591 |
| WQ0003626 | Maxton Plant and Silgan Can Company WWTP | WW Irrigation | C | 58.42 | 82.63 | 131,080,379 |
| WQ0003661 | Faison WWTF | WW Irrigation | 12 | 2.62 | 19.66 | 1,398,696 |
| WQ0003661 | Faison WWTF | WW Irrigation | 04 | 2.67 | 30.17 | 2,187,384 |
| WQ0003661 | Faison WWTF | WW Irrigation | 10 | 3.91 | 32.67 | 3,468,680 |
| WQ0003661 | Faison WWTF | WW Irrigation | 05 | 6.06 | 24.08 | 3,962,484 |
| WQ0003661 | Faison WWTF | WW Irrigation | 11 | 3.97 | 37.42 | 4,033,970 |
| WQ0003661 | Faison WWTF | WW Irrigation | 09 | 3.40 | 48.00 | 4,431,579 |
| WQ0003661 | Faison WWTF | WW Irrigation | 03 | 6.52 | 31.77 | 5,624,750 |
| WQ0003661 | Faison WWTF | WW Irrigation | 06 | 6.59 | 36.65 | 6,558,398 |
| WQ0003661 | Faison WWTF | WW Irrigation | 13 | 16.35 | 14.87 | 6,601,872 |
| WQ0003661 | Faison WWTF | WW Irrigation | 07 | 6.06 | 49.84 | 8,201,420 |
| WQ0003661 | Faison WWTF | WW Irrigation | 01 | 6.16 | 51.44 | 8,604,389 |
| WQ0003687 | Gold Hill Airpk Hoa-Gold Hill | WW Irrigation | 01 | 4.89 | 2.34 | 310,716 |
| WQ0003717 | Parks Family Meats WWTF | WW Irrigation | 01 | 0.20 | 2.80 | 15,206 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 7 | 1.62 | 0.24 | 10,558 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 6 | 1.62 | 0.56 | 24,634 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 5 | 1.62 | 0.59 | 25,954 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 4 | 0.72 | 1.53 | 29,913 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 8 | 1.62 | 0.75 | 32,992 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 1 | 0.72 | 1.75 | 34,214 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 2 | 0.72 | 1.88 | 36,756 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | SB 3 | 0.72 | 1.89 | 36,952 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 07-B | 0.61 | 17.54 | 290,535 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 07-A | 2.82 | 19.00 | 1,454,927 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 08-B | 1.91 | 32.36 | 1,678,341 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 09-B | 1.48 | 47.33 | 1,902,114 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 05 | 11.00 | 26.85 | 8,020,018 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 09-C | 8.43 | 40.57 | 9,286,904 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 07-C | 9.34 | 37.05 | 9,396,659 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 08-C | 10.90 | 32.13 | 9,509,892 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 06-C | 9.64 | 39.31 | 10,290,073 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 2 | 13.00 | 45.42 | 16,033,520 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 1 | 14.40 | 43.45 | 16,989,893 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 3 | 13.00 | 48.77 | 17,216,089 |
| WQ0003765 | New Bern Seven Water Reclamation Facility | Reclaimed | ZONE 04 | 13.80 | 46.28 | 17,342,465 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-05B | 1.43 | 3.55 | 137,849 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-01A N | 0.82 | 8.33 | 185,480 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-09 | 3.92 | 2.18 | 232,050 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-02 | 2.75 | 3.92 | 292,723 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-04 N | 2.06 | 5.27 | 294,792 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-01C S | 1.35 | 9.52 | 348,987 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-09 | 3.50 | 3.87 | 367,805 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-03 | 1.93 | 7.22 | 378,384 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-03 N | 2.01 | 7.56 | 412,626 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-01B N | 1.86 | 9.46 | 477,796 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-01B S | 1.94 | 9.95 | 524,159 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-01C N | 2.19 | 9.68 | 575,649 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-05 | 2.85 | 8.38 | 648,526 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-06 | 3.37 | 7.09 | 648,805 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-04 | 4.34 | 5.60 | 659,958 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-05A | 2.93 | 8.51 | 677,073 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-01A S | 2.84 | 8.94 | 689,436 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-07 | 3.51 | 7.64 | 728,180 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-04 | 4.19 | 6.56 | 746,374 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-08 | 3.21 | 8.60 | 749,621 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-06 | 3.90 | 7.14 | 756,138 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | C-01 | 4.31 | 6.71 | 785,305 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-08 | 4.55 | 7.00 | 864,864 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | A-02 | 3.27 | 9.91 | 879,954 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-01 | 4.38 | 7.53 | 895,586 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-02 | 4.27 | 7.75 | 898,603 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-07 | 3.74 | 8.88 | 901,826 |
| WQ0003823 | Wilson, NC Processing Facility | WW Irrigation | B-03 | 3.93 | 8.93 | 952,977 |
| WQ0003885 | Ahoskie Town-WWTP/Spray | WW Irrigation | 01 | 54.82 | 46.98 | 69,934,331 |
| WQ0003885 | Ahoskie Town-WWTP/Spray | WW Irrigation | 02 | 81.56 | 31.95 | 70,759,778 |
| WQ0003885 | Ahoskie Town-WWTP/Spray | WW Irrigation | 03 | 67.55 | 55.60 | 101,985,523 |
| WQ0004059 | Atlantic Station WWTF | High-Rate Infiltration | 02 | 0.13 | 968.81 | 3,419,953 |
| WQ0004059 | Atlantic Station WWTF | High-Rate Infiltration | 01 | 0.13 | 1,221.43 | 4,311,704 |
| WQ0004075 | Pender Packing WWTF | WW Irrigation | WEST | 0.45 | 7.96 | 97,267 |
| WQ0004075 | Pender Packing WWTF | WW Irrigation | EAST | 0.45 | 9.70 | 118,528 |
| WQ0004075 | Pender Packing WWTF | WW Irrigation | CENTER | 0.55 | 9.79 | 146,212 |
| WQ0004115 | Champion Hills | WW Irrigation | GC SPRAY FIELD #3 | 9.21 | 2.80 | 701,130 |
| WQ0004115 | Champion Hills | WW Irrigation | GC SPRAY FIELD #1 | 9.14 | 2.86 | 710,568 |
| WQ0004115 | Champion Hills | WW Irrigation | GC SPRAY FIELD #2 | 11.27 | 3.36 | 1,027,828 |
| WQ0004115 | Champion Hills | WW Irrigation | GC SPRAY FIELD #4 | 20.35 | 5.29 | 2,922,481 |
| WQ0004122 | Jordan Lake SRA - Poplar Point | WW Irrigation | 02 | 4.30 | 1.72 | 200,833 |
| WQ0004122 | Jordan Lake SRA - Poplar Point | WW Irrigation | 07 | 3.30 | 3.37 | 301,983 |
| WQ0004122 | Jordan Lake SRA - Poplar Point | WW Irrigation | 05 | 4.30 | 2.90 | 338,614 |
| WQ0004122 | Jordan Lake SRA - Poplar Point | WW Irrigation | 04 | 4.30 | 3.02 | 352,626 |
| WQ0004122 | Jordan Lake SRA - Poplar Point | WW Irrigation | 03 | 4.30 | 3.64 | 425,019 |
| WQ0004122 | Jordan Lake SRA - Poplar Point | WW Irrigation | 01 | 4.30 | 4.52 | 527,771 |
| WQ0004122 | Jordan Lake SRA - Poplar Point | WW Irrigation | 06 | 5.00 | 4.22 | 572,955 |
| WQ0004230 | A Place at the Beach III WWTP | High-Rate Infiltration | 01 | 0.06 | 1,470.67 | 2,396,096 |
| WQ0004230 | A Place at the Beach III WWTP | High-Rate Infiltration | 02 | 0.06 | 1,470.67 | 2,396,096 |
| WQ0004230 | A Place at the Beach III WWTP | High-Rate Infiltration | 03 | 0.06 | 1,470.67 | 2,396,096 |
| WQ0004240 | Bogue Airfield WWTF | WW Irrigation | 02 | 2.00 | 29.10 | 1,580,379 |
| WQ0004240 | Bogue Airfield WWTF | WW Irrigation | 01 | 2.00 | 33.29 | 1,807,932 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 7 | 1.00 | 6.94 | 188,451 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 5 | 0.78 | 9.04 | 191,470 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 9 | 0.79 | 11.31 | 242,621 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 17 | 2.27 | 4.42 | 272,450 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 15 | 0.97 | 10.64 | 280,254 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 4 | 1.89 | 6.54 | 335,643 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 11 | 0.67 | 19.57 | 356,044 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 1 | 1.64 | 13.22 | 588,727 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 3-A | 5.81 | 4.19 | 661,041 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 3-B | 5.81 | 4.19 | 661,041 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 13 | 2.13 | 13.87 | 802,222 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 6 | 1.94 | 16.08 | 847,083 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 10 | 1.33 | 24.53 | 885,906 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 8 | 2.59 | 22.67 | 1,594,372 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 12 | 3.74 | 16.54 | 1,679,753 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 2 | 3.23 | 21.25 | 1,863,802 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 16 | 7.20 | 15.55 | 3,040,194 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 18A | 6.56 | 24.46 | 4,357,112 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 14 | 7.55 | 26.72 | 5,477,997 |
| WQ0004268 | Allens, Inc. - Plant #7 | WW Irrigation | 18 | 8.87 | 24.89 | 5,994,968 |
| WQ0004270 | AB Carter Incorporated-A B Carter | WW Irrigation | 01 | 1.00 | 4.13 | 112,147 |
| WQ0004270 | AB Carter Incorporated-A B Carter | WW Irrigation | 02 | 1.00 | 4.19 | 113,776 |
| WQ0004327 | Triangle Brick Co-Merry Oaks | WW Irrigation | 01A | 1.20 | 4.25 | 138,487 |
| WQ0004327 | Triangle Brick Co-Merry Oaks | WW Irrigation | 01B | 1.20 | 4.25 | 138,487 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 26 | 3.42 | 33.28 | 3,090,636 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 39 | 3.75 | 39.13 | 3,984,552 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 13 | 3.97 | 40.40 | 4,355,222 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 16 | 4.19 | 39.26 | 4,466,864 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 38 | 4.30 | 38.26 | 4,467,369 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 11 | 4.52 | 37.60 | 4,614,925 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 41 | 4.74 | 38.11 | 4,905,188 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 28 | 4.96 | 37.08 | 4,994,129 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 40 | 4.85 | 38.51 | 5,071,701 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 24 | 4.96 | 38.53 | 5,189,423 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 21 | 5.27 | 36.65 | 5,244,728 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 10 | 5.07 | 38.11 | 5,246,689 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 27 | 5.18 | 38.96 | 5,480,082 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 17 | 5.29 | 38.16 | 5,481,538 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 29 | 5.07 | 40.13 | 5,524,787 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 23 | 5.95 | 34.38 | 5,554,708 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 34 | 5.40 | 38.11 | 5,588,189 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 07 | 6.50 | 31.69 | 5,593,376 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 31 | 5.29 | 38.95 | 5,595,018 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 05 | 6.28 | 33.06 | 5,637,686 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 25 | 5.51 | 38.11 | 5,702,023 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 18 | 5.51 | 38.65 | 5,782,817 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 30 | 5.62 | 37.98 | 5,796,017 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 35 | 5.73 | 38.11 | 5,929,690 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 15 | 5.62 | 39.03 | 5,956,255 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 12 | 5.84 | 38.00 | 6,026,079 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 20 | 5.62 | 39.64 | 6,049,345 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 42 | 5.73 | 39.03 | 6,072,836 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 32 | 5.62 | 39.83 | 6,078,340 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 22 | 5.95 | 37.81 | 6,108,886 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 02 | 5.95 | 37.89 | 6,121,812 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 01 | 5.73 | 40.17 | 6,250,213 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 19 | 5.84 | 39.77 | 6,306,768 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 06 | 6.28 | 37.00 | 6,309,570 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 37 | 5.73 | 40.69 | 6,331,122 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 36 | 5.84 | 40.01 | 6,344,827 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 14 | 6.06 | 38.73 | 6,373,214 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 08 | 6.50 | 36.89 | 6,511,190 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 33 | 6.17 | 38.96 | 6,527,434 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 03 | 6.61 | 38.27 | 6,869,076 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 09 | 6.28 | 40.63 | 6,928,590 |
| WQ0004332 | Edenton Town-WWTF/Sids | WW Irrigation | 04 | 6.06 | 66.79 | 10,990,627 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 03 | 1.40 | 18.16 | 690,371 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 02 | 3.40 | 18.40 | 1,698,772 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 08 | 3.10 | 20.37 | 1,714,712 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 01 | 3.40 | 19.44 | 1,794,790 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 06 | 3.10 | 24.17 | 2,034,589 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 09 | 3.00 | 27.23 | 2,218,234 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 07 | 3.10 | 26.41 | 2,223,149 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 05 | 3.10 | 26.86 | 2,261,029 |
| WQ0004410 | Granville Family Park Incorporated | WW Irrigation | 04 | 3.10 | 27.35 | 2,302,276 |
| WQ0004438 | S T Wooten Corporation - New Bern | WW Irrigation | 1 | 0.45 | 11.45 | 139,895 |
| WQ0004479 | Handy Sd-Uwharrie Pt | Reclaimed | 01 | 49.50 | 3.40 | 4,567,378 |
| WQ0004479 | Handy Sd-Uwharrie Pt | Reclaimed | 02 | 7.00 | 24.32 | 4,622,746 |
| WQ0004502 | Hillsborough Church Of Christ | WW Irrigation | 01 | 2.30 | 0.63 | 39,347 |
| WQ0004508 | Emerson Waldorf School-Ew Sch | WW Irrigation | 01 | 2.00 | 7.10 | 385,591 |
| WQ0004696 | Carolina Village | WW Irrigation | IR-1 | 10.30 | 10.11 | 2,826,594 |
| WQ0004696 | Carolina Village | WW Irrigation | IB-1 | 1.57 | 89.86 | 3,830,834 |
| WQ0004750 | Person Co Boe-Oak Lane Elem | WW Irrigation | 01 | 4.00 | 4.28 | 464,881 |
| WQ0004751 | Colonial Pipeline Co-Char Del | WW Irrigation | 01 | 0.25 | 2.49 | 16,904 |
| WQ0004751 | Colonial Pipeline Co-Char Del | WW Irrigation | 02 | 0.25 | 2.49 | 16,904 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 07B | 1.44 | 17.12 | 669,586 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 04 | 3.30 | 7.63 | 683,807 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 02 | 4.10 | 7.42 | 826,088 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 01 | 4.60 | 7.91 | 987,661 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 05A | 2.20 | 18.65 | 1,114,260 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 03 | 4.40 | 9.69 | 1,157,153 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 07A | 3.42 | 14.83 | 1,376,949 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 05B | 3.18 | 17.06 | 1,472,710 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 11 | 4.35 | 13.69 | 1,616,724 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 06 | 4.86 | 15.92 | 2,101,356 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 10 | 4.15 | 21.07 | 2,374,722 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 08 | 5.24 | 17.07 | 2,429,149 |
| WQ0004797 | Clement Pappas NC, Inc | WW Irrigation | 09 | 5.25 | 18.65 | 2,658,887 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0004823 | Pine Island/Currituck Club | Reclaimed | 01 GOLF COURSE | 66.00 | 35.29 | 63,246,133 |
| WQ0004888 | Chatham Co Boe-Silk Hope Elem | WW Irrigation | 01 | 1.10 | 5.67 | 169,361 |
| WQ0004888 | Chatham Co Boe-Silk Hope Elem | WW Irrigation | 02 | 1.10 | 5.67 | 169,361 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 10 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 01 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 02 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 03 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 04 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 05 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 06 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 07 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 08 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 09 | 5.30 | 12.75 | 1,834,951 |
| WQ0004910 | Town of Woodland WWTF | WW Irrigation | 10 | 5.30 | 12.75 | 1,834,951 |
| WQ0004967 | Alljuice Food & Beverage | WW Irrigation | 01 | 7.05 | 25.52 | 4,885,490 |
| WQ0004972 | Forest Lake Preserve | WW Irrigation | 01 | 9.00 | 5.18 | 1,265,933 |
| WQ0004988 | Jordan Lake SRA - Seaforth | WW Irrigation | 02 | 2.37 | 3.22 | 207,225 |
| WQ0004988 | Jordan Lake SRA - Seaforth | WW Irrigation | 01 | 2.37 | 3.36 | 216,235 |
| WQ0005134 | Wake Co Wildlife Club-Coley | WW Irrigation | 01 | 0.39 | 2.19 | 23,192 |
| WQ0005150 | North End Elementary | WW Irrigation | 01 | 1.10 | 3.00 | 89,609 |
| WQ0005150 | North End Elementary | WW Irrigation | 02 | 1.76 | 3.60 | 172,050 |
| WQ0005173 | Cape Royall Dolphin WWTF | High-Rate Infiltration | 01 | 0.12 | 428.01 | 1,394,671 |
| WQ0005173 | Cape Royall Dolphin WWTF | High-Rate Infiltration | 02 | 0.12 | 428.01 | 1,394,671 |
| WQ0005192 | Murfreesboro Hatchery #5 | WW Irrigation | ALL | 4.70 | 4.05 | 516,882 |
| WQ0005233 | Enlisted Mens Barracks - Atlantic Airfield WWTF | WW Irrigation | 02 | 0.50 | 3.93 | 53,358 |
| WQ0005233 | Enlisted Mens Barracks - Atlantic Airfield WWTF | WW Irrigation | 01 | 0.50 | 5.15 | 69,922 |
| WQ0005247 | Rollingview State Recreation Area | WW Irrigation | LLS | 3.55 | 9.52 | 917,321 |
| WQ0005247 | Rollingview State Recreation Area | WW Irrigation | UPR | 3.55 | 10.38 | 1,000,705 |
| WQ0005279 | Bingham Woods Mhp-Bingham Wds | WW Irrigation | 02 | 10.70 | 1.06 | 307,984 |
| WQ0005426 | Holly Point Recreation Area | WW Irrigation | UPR | 1.40 | 6.52 | 247,750 |
| WQ0005426 | Holly Point Recreation Area | WW Irrigation | LLS | 1.40 | 9.27 | 352,256 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 02 | 2.55 | 3.46 | 239,582 |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 04 | 2.55 | 3.61 | 249,969 |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 03 | 2.55 | 4.95 | 342,755 |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 01 | 2.55 | 5.03 | 348,294 |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 05 | 2.55 | 5.12 | 354,526 |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 07 | 2.55 | 6.06 | 419,615 |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 08 | 2.55 | 6.54 | 452,852 |
| WQ0005555 | Elkin, NC Oriented Strand Board Manufacturing | WW Irrigation | 06 | 2.55 | 8.25 | 571,258 |
| WQ0005614 | Dunbar Foods Corporation | WW Irrigation | 2 - JOHNSON | 30.00 | 5.03 | 4,100,351 |
| WQ0005614 | Dunbar Foods Corporation | WW Irrigation | 1 - FACTORY | 30.00 | 6.06 | 4,938,523 |
| WQ0005681 | Gold Kist Incorporated-Staley Hatchery & Feed Mill | WW Irrigation | 01 | 5.20 | 21.31 | 3,009,021 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 08B | 0.54 | 28.76 | 421,717 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 09A | 1.44 | 29.44 | 1,151,168 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 11A | 1.54 | 30.00 | 1,254,528 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 11B | 1.72 | 28.97 | 1,353,055 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 07A | 1.42 | 35.91 | 1,384,657 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 07B | 1.80 | 29.04 | 1,419,409 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 12 | 1.85 | 28.56 | 1,434,724 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 04A | 1.70 | 33.44 | 1,543,667 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 09B | 1.98 | 29.08 | 1,563,500 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 04B | 1.75 | 33.41 | 1,587,643 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 01B | 1.84 | 33.54 | 1,675,789 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 06 | 1.88 | 33.44 | 1,707,114 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 01A | 1.98 | 33.48 | 1,800,068 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 08A | 2.98 | 26.11 | 2,112,815 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 15 | 3.38 | 28.36 | 2,602,923 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 10 | 3.30 | 29.95 | 2,683,794 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 17 | 3.47 | 28.50 | 2,685,423 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 16 | 3.38 | 29.45 | 2,702,965 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 02 | 3.24 | 31.79 | 2,796,881 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 03 | 3.40 | 30.53 | 2,818,669 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 05 | 3.30 | 33.53 | 3,004,595 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 13 | 4.06 | 31.45 | 3,467,249 |
| WQ0005721 | Pink Hill Town WWTP | WW Irrigation | 14 | 3.21 | 45.91 | 4,001,757 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 14 | 0.98 | 17.99 | 478,735 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 8 | 1.55 | 24.50 | 1,031,184 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 6 | 1.25 | 35.55 | 1,206,669 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 7 | 1.70 | 27.73 | 1,280,080 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 13 | 1.19 | 40.79 | 1,318,072 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 12 | 1.62 | 31.14 | 1,369,847 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 9 | 1.99 | 25.96 | 1,402,801 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 11 | 2.47 | 22.75 | 1,525,867 |
| WQ0005790 | Oak Island WWTF | Reclaimed | 10 | 1.75 | 49.17 | 2,336,558 |
| WQ0005790 | Oak Island WWTF | Reclaimed | HIGH RATE POND | 1.61 | 73.28 | 3,203,610 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 21 | 1.56 | 19.35 | 819,679 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 20 | 1.56 | 20.64 | 874,325 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 27 | 2.60 | 22.06 | 1,557,461 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 32 | 2.86 | 21.05 | 1,634,769 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 28 | 3.12 | 20.66 | 1,750,344 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 22 | 3.12 | 20.96 | 1,775,760 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 05 | 2.86 | 26.34 | 2,045,598 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 31 | 3.90 | 19.34 | 2,048,139 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 30 | 5.46 | 16.74 | 2,481,913 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 29 | 4.68 | 20.96 | 2,663,640 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 03 | 4.28 | 26.36 | 3,063,568 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 34 | 5.72 | 20.78 | 3,227,602 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 23 | 5.72 | 20.96 | 3,255,560 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 26 | 5.72 | 20.96 | 3,255,560 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 25 | 5.72 | 21.11 | 3,278,858 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 33 | 6.50 | 20.96 | 3,699,500 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 24 | 7.02 | 20.97 | 3,997,366 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 04 | 3.76 | 48.93 | 4,995,759 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 10 | 4.80 | 48.97 | 6,382,778 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 19 | 6.36 | 48.96 | 8,455,454 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 11 | 7.14 | 49.30 | 9,558,363 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 09 | 7.27 | 48.92 | 9,657,378 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 15 | 7.40 | 48.96 | 9,838,106 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 12 | 7.67 | 48.97 | 10,199,147 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 16 | 7.79 | 48.99 | 10,362,947 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 17 | 7.92 | 48.97 | 10,531,583 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 18 | 7.92 | 48.97 | 10,531,583 |
| WQ0005849 | Pluris North Topsail WWTF | High-Rate Infiltration | 08 | 12.59 | 48.96 | 16,738,076 |
| WQ0005910 | Avoca Farms - Merry Hill | WW Irrigation | 3 | 3.62 | 4.47 | 439,394 |
| WQ0005910 | Avoca Farms - Merry Hill | WW Irrigation | 5-4 | 5.73 | 6.99 | 1,087,602 |
| WQ0005910 | Avoca Farms - Merry Hill | WW Irrigation | 5-2 | 5.90 | 7.48 | 1,198,373 |
| WQ0005910 | Avoca Farms - Merry Hill | WW Irrigation | 4 | 9.97 | 4.47 | 1,210,155 |
| WQ0005910 | Avoca Farms - Merry Hill | WW Irrigation | 5-1 | 5.64 | 9.09 | 1,392,135 |
| WQ0005910 | Avoca Farms - Merry Hill | WW Irrigation | 5-3 | 5.64 | 9.56 | 1,464,116 |
| WQ0006058 | Perdue Farms Incorporated-Hatchery#9 | WW Irrigation | 02 | 5.00 | 17.91 | 2,431,666 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 03 | 7.86 | 16.68 | 3,560,057 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 11 | 7.86 | 18.08 | 3,858,863 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 12 | 7.86 | 18.96 | 4,046,684 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 04 | 7.86 | 20.33 | 4,339,087 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 01 | 7.86 | 20.50 | 4,375,370 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 02 | 7.86 | 20.65 | 4,407,385 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 13 | 7.86 | 21.14 | 4,511,967 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 06 | 7.86 | 21.82 | 4,657,101 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 05 | 7.86 | 23.33 | 4,979,385 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 09 | 7.86 | 24.60 | 5,250,444 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 15 | 5.90 | 33.16 | 5,312,573 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 14 | 7.86 | 25.39 | 5,419,056 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 10 | 7.86 | 25.78 | 5,502,295 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 21 | 8.11 | 26.12 | 5,752,179 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 07 | 7.86 | 28.28 | 6,035,876 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 08 | 7.86 | 30.87 | 6,588,667 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 19 | 7.19 | 34.35 | 6,706,470 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 17 | 7.46 | 33.31 | 6,747,639 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 20 | 8.69 | 29.76 | 7,022,489 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 16 | 8.57 | 32.72 | 7,614,344 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 23 | 13.16 | 22.47 | 8,029,663 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 18 | 7.85 | 39.03 | 8,319,679 |
| WQ0006085 | Town of Ocean Isle Beach WWTF | Reclaimed | 22 | 14.05 | 22.74 | 8,675,713 |
| WQ0006131 | Hyde Co Boe-Mattamuskeet Imp | WW Irrigation | 07 | 1.02 | 6.16 | 170,560 |
| WQ0006131 | Hyde Co Boe-Mattamuskeet Imp | WW Irrigation | 03 | 1.24 | 7.94 | 267,216 |
| WQ0006131 | Hyde Co Boe-Mattamuskeet Imp | WW Irrigation | 06 | 1.24 | 7.98 | 268,663 |
| WQ0006131 | Hyde Co Boe-Mattamuskeet Imp | WW Irrigation | 01 | 1.31 | 7.81 | 277,747 |
| WQ0006131 | Hyde Co Boe-Mattamuskeet Imp | WW Irrigation | 04 | 1.24 | 9.09 | 305,904 |
| WQ0006131 | Hyde Co Boe-Mattamuskeet Imp | WW Irrigation | 02 | 1.31 | 8.78 | 312,465 |
| WQ0006131 | Hyde Co Boe-Mattamuskeet Imp | WW Irrigation | 05 | 1.24 | 10.20 | 343,414 |
| WQ0006254 | Corolla Light WWTP #1 | High-Rate Infiltration | 02 | 0.18 | 1,256.50 | 6,141,463 |
| WQ0006254 | Corolla Light WWTP #1 | High-Rate Infiltration | 04 | 0.18 | 1,256.50 | 6,141,463 |
| WQ0006254 | Corolla Light WWTP #1 | High-Rate Infiltration | 03 | 0.18 | 1,262.45 | 6,170,553 |
| WQ0006254 | Corolla Light WWTP #1 | High-Rate Infiltration | 04 | 0.18 | 1,264.26 | 6,179,413 |
| WQ0006254 | Corolla Light WWTP #1 | High-Rate Infiltration | 01 | 0.18 | 1,346.52 | 6,581,489 |
| WQ0006317 | Greensboro Junction | WW Irrigation | 02 | 1.09 | 0.39 | 11,632 |
| WQ0006317 | Greensboro Junction | WW Irrigation | 03 | 1.30 | 0.33 | 11,649 |
| WQ0006317 | Greensboro Junction | WW Irrigation | 01 | 1.30 | 0.66 | 23,298 |
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 9-10 | 9.40 | 44.65 | 11,396,925 |
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 11 | 20.97 | 27.87 | 15,869,885 |
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 5-6 | 9.60 | 68.31 | 17,807,129 |
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 3-4 | 10.30 | 63.84 | 17,855,355 |
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 12 | 15.26 | 44.29 | 18,352,642 |
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 7-8 | 14.60 | 49.00 | 19,426,176 |
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 13 | 15.87 | 45.39 | 19,560,299 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0006785 | Murfreesboro Town-WWT Plant | WW Irrigation | 1-2 | 13.90 | 62.58 | 23,620,481 |
| WQ0006863 | Genesis Condos WWTF | High-Rate Infiltration | 01 | 0.03 | 797.06 | 649,310 |
| WQ0006863 | Genesis Condos WWTF | High-Rate Infiltration | 02 | 0.03 | 797.06 | 649,310 |
| WQ0006932 | Professional Laboratory & Research Services, Inc. | WW Irrigation | 02 | 2.98 | 8.23 | 665,565 |
| WQ0006932 | Professional Laboratory & Research Services, Inc. | WW Irrigation | 01 | 2.65 | 13.44 | 967,415 |
| WQ0006941 | Stoney Creek Elementary | WW Irrigation | 01 | 3.12 | 4.29 | 363,455 |
| WQ0006946 | Reed Gold Mine | WW Irrigation | 02 | 1.06 | 2.81 | 80,882 |
| WQ0006946 | Reed Gold Mine | WW Irrigation | 01 | 1.06 | 3.28 | 94,410 |
| WQ0007026 | Sanford Health and Rehabilitation | WW Irrigation | 01 | 8.00 | 10.25 | 2,226,651 |
| WQ0007102 | Wake Co Boe-East Wake Middle | WW Irrigation | 03 | 0.70 | 7.19 | 136,630 |
| WQ0007102 | Wake Co Boe-East Wake Middle | WW Irrigation | 02 | 0.60 | 8.45 | 137,623 |
| WQ0007102 | Wake Co Boe-East Wake Middle | WW Irrigation | 01 | 0.70 | 7.58 | 143,986 |
| WQ0007102 | Wake Co Boe-East Wake Middle | WW Irrigation | 04 | 0.70 | 8.90 | 169,095 |
| WQ0007103 | Sound Of The Sea Condominiums WWTF | High-Rate Infiltration | 01 | 0.07 | 533.63 | 1,014,316 |
| WQ0007103 | Sound Of The Sea Condominiums WWTF | High-Rate Infiltration | 02 | 0.07 | 533.63 | 1,014,316 |
| WQ0007143 | YMCA/Raleigh-Sea Gull Camp | WW Irrigation | 1 | 5.37 | 29.04 | 4,234,570 |
| WQ0007144 | YMCA/Raleigh-Seafarer Camp | WW Irrigation | 1 | 5.80 | 9.97 | 1,570,224 |
| WQ0007144 | YMCA/Raleigh-Seafarer Camp | WW Irrigation | 2 | 5.80 | 23.87 | 3,759,402 |
| WQ0007144 | YMCA/Raleigh-Seafarer Camp | WW Irrigation | 3 | 6.40 | 23.25 | 4,040,558 |
| WQ0007217 | Piney Island (BT-11) WWTF | WW Irrigation | 01 | 1.44 | 3.32 | 129,819 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 2 | 2.44 | 1.50 | 99,252 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 1 | 2.44 | 1.93 | 127,610 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 5 | 2.44 | 2.35 | 155,968 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 6 | 2.44 | 2.35 | 155,968 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 14 | 3.66 | 1.63 | 162,196 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 3 | 2.44 | 2.57 | 170,147 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 4 | 2.44 | 3.00 | 198,504 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 13 | 3.66 | 2.04 | 202,745 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 10 | 3.66 | 2.45 | 243,294 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 8 | 3.66 | 2.45 | 243,294 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 12 | 3.66 | 2.65 | 263,568 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 7 | 3.66 | 2.65 | 263,568 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 11 | 3.66 | 2.86 | 283,843 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 9 | 3.66 | 2.86 | 283,843 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 01 | 10.00 | 4.25 | 1,155,143 |
| WQ0007240 | Martin's Abattoir & Wholesale Meats, Inc. | WW Irrigation | 02 | 22.50 | 2.28 | 1,393,015 |
| WQ0007256 | Baycliff | High-Rate Infiltration | 01 | 0.05 | 2,053.49 | 2,788,058 |
| WQ0007283 | Pollocksville Town-WWTP/WWCS | WW Irrigation | 02 | 3.50 | 31.09 | 2,954,794 |
| WQ0007283 | Pollocksville Town-WWTP/WWCS | WW Irrigation | 01 | 3.50 | 33.47 | 3,180,989 |
| WQ0007283 | Pollocksville Town-WWTP/WWCS | WW Irrigation | 01 | 3.50 | 33.47 | 3,180,989 |
| WQ0007283 | Pollocksville Town-WWTP/WWCS | WW Irrigation | 04 | 4.00 | 30.32 | 3,293,272 |
| WQ0007283 | Pollocksville Town-WWTP/WWCS | WW Irrigation | 05 | 4.00 | 32.43 | 3,522,454 |
| WQ0007283 | Pollocksville Town-WWTP/WWCS | WW Irrigation | 06 | 4.20 | 30.89 | 3,522,943 |
| WQ0007283 | Pollocksville Town-WWTP/WWCS | WW Irrigation | 03 | 4.00 | 33.95 | 3,687,552 |
| WQ0007345 | Ready Mixed Concrete Company | WW Irrigation | 01 | 0.31 | 0.92 | 7,744 |
| WQ0007396 | Prestage Farms Hatchery | WW Irrigation | 02 | 1.50 | 79.56 | 3,240,592 |
| WQ0007396 | Prestage Farms Hatchery | WW Irrigation | 01 | 1.50 | 80.34 | 3,272,363 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 01 | 7.05 | 14.05 | 2,689,700 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 03 | 6.25 | 23.36 | 3,964,526 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 02 | 6.47 | 26.50 | 4,655,738 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 04 | 6.30 | 29.10 | 4,978,195 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 06 | 6.61 | 37.98 | 6,817,024 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 08 | 7.63 | 35.60 | 7,375,864 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 05 | 6.54 | 43.98 | 7,810,365 |
| WQ0007507 | Pasquotank Co-Industrial Pk | WW Irrigation | 07 | 6.09 | 49.71 | 8,220,523 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 1/5 | 0.60 | 10.64 | 173,353 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 1/4 | 0.81 | 8.19 | 180,139 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 1/1 | 0.88 | 7.79 | 186,148 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 1/3 | 0.93 | 8.19 | 206,826 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 1/2 | 0.97 | 8.20 | 215,985 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 2/5 | 0.93 | 9.60 | 242,433 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 2/4 | 1.04 | 9.08 | 256,423 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 2/3 | 1.27 | 8.20 | 282,785 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 2/2 | 1.42 | 8.20 | 316,185 |
| WQ0007521 | Goldsboro Hog Farms,Inc. Livestock Truckwash | WW Irrigation | 2/1 | 1.96 | 9.02 | 480,066 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 9B | 3.09 | 11.48 | 963,501 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 9D | 3.21 | 11.48 | 1,000,744 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 9E | 3.21 | 11.48 | 1,000,744 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 9C | 3.22 | 11.98 | 1,047,056 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 08 | 7.67 | 13.89 | 2,893,750 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 06 | 9.20 | 13.79 | 3,445,759 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 05 | 9.30 | 13.74 | 3,470,839 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 01 | 9.20 | 14.42 | 3,601,647 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 04 | 9.70 | 13.70 | 3,609,587 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 07 | 9.30 | 14.67 | 3,704,686 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 03 | 10.30 | 14.42 | 4,032,278 |
| WQ0008489 | NC Prison Facility at Piney Woods | WW Irrigation | 02 | 9.50 | 15.64 | 4,033,294 |
| WQ0008500 | C. G. White Elementary School | WW Irrigation | 01 | 0.46 | 7.08 | 88,486 |
| WQ0008500 | C. G. White Elementary School | WW Irrigation | 02 | 0.46 | 7.08 | 88,486 |
| WQ0008500 | C. G. White Elementary School | WW Irrigation | 03 | 0.46 | 7.08 | 88,486 |
| WQ0008500 | C. G. White Elementary School | WW Irrigation | 04 | 0.46 | 7.08 | 88,486 |
| WQ0008500 | C. G. White Elementary School | WW Irrigation | 05 | 0.46 | 7.08 | 88,486 |
| WQ0009098 | James Rest Home | WW Irrigation | 01 | 3.20 | 8.17 | 709,487 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 9 | 34.65 | 24.85 | 23,381,266 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 4 | 45.21 | 20.56 | 25,240,386 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 6 | 53.79 | 21.51 | 31,418,130 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 2 | 51.26 | 24.54 | 34,157,930 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 5 | 77.33 | 18.87 | 39,623,998 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 13 | 64.68 | 25.17 | 44,207,058 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 16 | 68.09 | 24.26 | 44,855,171 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 18 | 73.04 | 23.81 | 47,223,540 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 26 | 70.29 | 24.86 | 47,449,654 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 19 | 78.10 | 23.23 | 49,265,016 |

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| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 17 | 78.76 | 23.29 | 49,809,660 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 14 | 74.14 | 24.82 | 49,968,089 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 15 | 76.56 | 24.23 | 50,372,525 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 20 | 84.70 | 22.29 | 51,266,287 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 11 | 76.78 | 25.37 | 52,894,067 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 10 | 88.55 | 22.69 | 54,558,377 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 7 | 90.20 | 22.98 | 56,285,295 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 12 | 100.32 | 20.75 | 56,525,447 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 1 | 106.15 | 20.08 | 57,879,143 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 24 | 95.81 | 22.40 | 58,277,007 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 8 | 96.91 | 22.67 | 59,656,600 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 23 | 102.85 | 21.91 | 61,190,649 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 21 | 90.42 | 25.24 | 61,971,533 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 27 | 107.36 | 21.44 | 62,503,691 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 22 | 121.44 | 19.33 | 63,742,926 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 25 | 89.87 | 27.00 | 65,889,603 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 3 | 117.37 | 22.82 | 72,729,588 |
| WQ0009267 | Jacksonville WWTF | WW Irrigation | 28 | 117.04 | 26.94 | 85,619,027 |
| WQ0009589 | Chatham Co-Jordan Lake WTP | WW Irrigation | 1 | 0.24 | 6.18 | 40,275 |
| WQ0009772 | Monteray Shores | High-Rate Infiltration | 04 | 0.18 | 62.93 | 307,595 |
| WQ0009772 | Monteray Shores | High-Rate Infiltration | 01 | 0.18 | 487.46 | 2,382,584 |
| WQ0009826 | Dobson Hatchery Spray Irrigation System | WW Irrigation | 01 | 0.75 | 37.81 | 770,028 |
| WQ0009826 | Dobson Hatchery Spray Irrigation System | WW Irrigation | 02 | 0.75 | 37.81 | 770,028 |
| WQ0009849 | Badin Lake Recreation Area | WW Irrigation | 01 | 2.50 | 4.00 | 271,679 |
| WQ0009946 | Askewville Elementary Surface Irrigation | WW Irrigation | 01 | 2.70 | 3.98 | 291,653 |
| WQ0010034 | Acre Station Meat Farm-Huettmann | WW Irrigation | 02 | 6.03 | 5.84 | 956,244 |
| WQ0010034 | Acre Station Meat Farm-Huettmann | WW Irrigation | 01 | 3.00 | 16.84 | 1,371,835 |
| WQ0010657 | Badin Shores Resort | WW Irrigation | 2 | 2.10 | 18.54 | 1,057,225 |
| WQ0010657 | Badin Shores Resort | WW Irrigation | 01 | 12.60 | 19.72 | 6,747,080 |
| WQ0010878 | West Campus | WW Irrigation | 03 | 1.50 | 10.53 | 428,849 |
| WQ0010878 | West Campus | WW Irrigation | 02 | 1.50 | 10.82 | 440,637 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0010878 | West Campus | WW Irrigation | 05 | 1.50 | 10.89 | 443,732 |
| WQ0010878 | West Campus | WW Irrigation | 06 | 1.50 | 12.23 | 498,154 |
| WQ0010878 | West Campus | WW Irrigation | 04 | 1.50 | 12.59 | 512,947 |
| WQ0010878 | West Campus | WW Irrigation | 07 | 1.50 | 12.74 | 518,922 |
| WQ0010878 | West Campus | WW Irrigation | 01 | 1.50 | 13.95 | 568,077 |
| WQ0010878 | West Campus | WW Irrigation | 08 | 1.50 | 20.24 | 824,257 |
| WQ0011119 | Town of Colerain WWTP | WW Irrigation | 01 | 49.50 | 14.61 | 19,637,844 |
| WQ0011313 | Peppertree Resort WWTF | High-Rate Infiltration | 01 | 0.15 | 1,233.35 | 4,856,176 |
| WQ0011313 | Peppertree Resort WWTF | High-Rate Infiltration | 02 | 0.15 | 1,233.35 | 4,856,176 |
| WQ0011360 | Murphy-Brown, LLC - Tarheel Trailer Sanitation | WW Irrigation | 04 | 5.79 | 4.32 | 679,205 |
| WQ0011360 | Murphy-Brown, LLC - Tarheel Trailer Sanitation | WW Irrigation | 02 | 7.48 | 5.03 | 1,021,664 |
| WQ0011360 | Murphy-Brown, LLC - Tarheel Trailer Sanitation | WW Irrigation | 01 | 7.80 | 5.04 | 1,067,489 |
| WQ0011360 | Murphy-Brown, LLC - Tarheel Trailer Sanitation | WW Irrigation | 03 | 9.43 | 4.92 | 1,259,839 |
| WQ0011614 | Ocean Ridge Plantation WWTF | Reclaimed | 03 | 76.30 | 2.13 | 4,413,087 |
| WQ0011614 | Ocean Ridge Plantation WWTF | Reclaimed | 02 | 92.50 | 2.01 | 5,048,661 |
| WQ0011614 | Ocean Ridge Plantation WWTF | Reclaimed | 01 | 84.90 | 2.24 | 5,164,093 |
| WQ0011655 | E Carolina Council/Boy Scout | WW Irrigation | E | 1.39 | 3.07 | 115,875 |
| WQ0011655 | E Carolina Council/Boy Scout | WW Irrigation | A | 1.39 | 3.08 | 116,253 |
| WQ0011655 | E Carolina Council/Boy Scout | WW Irrigation | D | 1.39 | 3.21 | 121,160 |
| WQ0011655 | E Carolina Council/Boy Scout | WW Irrigation | B | 1.39 | 3.23 | 121,915 |
| WQ0011655 | E Carolina Council/Boy Scout | WW Irrigation | C | 1.39 | 3.24 | 122,292 |
| WQ0011777 | Jordan Lake Business Park Association | Reclaimed | 1 | 0.34 | 3.82 | 35,268 |
| WQ0011928 | Olde Sycamore WWTP | WW Irrigation | 16 | 33.07 | 0.81 | 727,374 |
| WQ0011928 | Olde Sycamore WWTP | WW Irrigation | 12 | 29.10 | 0.94 | 742,778 |
| WQ0011928 | Olde Sycamore WWTP | WW Irrigation | 06 | 28.63 | 1.27 | 987,333 |
| WQ0011928 | Olde Sycamore WWTP | WW Irrigation | 08 | 28.63 | 1.27 | 987,333 |
| WQ0011928 | Olde Sycamore WWTP | WW Irrigation | 10 | 12.06 | 11.18 | 3,661,234 |
| WQ0011928 | Olde Sycamore WWTP | WW Irrigation | 04 | 13.88 | 9.81 | 3,697,404 |
| WQ0011928 | Olde Sycamore WWTP | WW Irrigation | 01 | 18.11 | 10.03 | 4,932,394 |
| WQ0012690 | Mt Mitchell State Park | WW Irrigation | 01 | 0.44 | 2.63 | 31,404 |
| WQ0012694 | East Campus | WW Irrigation | 04 | 1.50 | 1.14 | 46,532 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0012694 | East Campus | WW Irrigation | 03 | 1.50 | 1.35 | 54,930 |
| WQ0012694 | East Campus | WW Irrigation | 01 | 1.50 | 2.81 | 114,276 |
| WQ0012694 | East Campus | WW Irrigation | 02 | 1.50 | 3.05 | 124,280 |
| WQ0012696 | Pamlico River Ferry Terminal | WW Irrigation | 01 | 0.50 | 6.40 | 86,826 |
| WQ0012709 | Wells Pork & Beef Products WWTF | WW Irrigation | 01 | 3.65 | 2.78 | 275,535 |
| WQ0012748 | Sea Trail WWTF | Reclaimed | BYRD COURSE | 63.00 | 2.13 | 3,643,834 |
| WQ0012748 | Sea Trail WWTF | Reclaimed | MAPLES COURSE | 66.00 | 37.81 | 67,762,434 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 04 | 0.81 | 3.07 | 67,443 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 06 | 1.11 | 2.25 | 67,803 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 07 | 1.11 | 2.85 | 85,857 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 05 | 1.11 | 3.39 | 102,224 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 08 | 1.47 | 3.28 | 130,987 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 01 | 1.26 | 10.12 | 346,328 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 03 | 1.21 | 17.17 | 564,261 |
| WQ0012796 | Lakeview Packing Company Inc | WW Irrigation | 02 | 1.26 | 17.13 | 586,151 |
| WQ0012821 | U S Marine Corps-Golf Course | Reclaimed | 1 (FAIRWAYS) | 105.50 | 0.70 | 2,005,344 |
| WQ0012901 | Bailey Foods, LLC | WW Irrigation | 1 | 1.14 | 12.36 | 382,615 |
| WQ0012901 | Bailey Foods, LLC | WW Irrigation | 2 | 1.14 | 12.36 | 382,615 |
| WQ0012948 | Pisgah Center for Wildlife Education | WW Irrigation | WETLAND CELL | 0.17 | 21.43 | 98,926 |
| WQ0012948 | Pisgah Center for Wildlife Education | WW Irrigation | 03 | 0.56 | 13.31 | 202,397 |
| WQ0012948 | Pisgah Center for Wildlife Education | WW Irrigation | 02 | 0.60 | 16.52 | 269,153 |
| WQ0012948 | Pisgah Center for Wildlife Education | WW Irrigation | 01 | 0.60 | 18.51 | 301,575 |
| WQ0013027 | Sea Isle Plantation North WWTF | High-Rate Infiltration | 01 | 0.09 | 293.38 | 716,983 |
| WQ0013027 | Sea Isle Plantation North WWTF | High-Rate Infiltration | 02 | 0.09 | 293.38 | 716,983 |
| WQ0013181 | South Topsail Elementary School WWTF | WW Irrigation | 01 | 0.46 | 4.03 | 50,364 |
| WQ0013181 | South Topsail Elementary School WWTF | WW Irrigation | 02 | 0.46 | 4.03 | 50,364 |
| WQ0013181 | South Topsail Elementary School WWTF | WW Irrigation | 03 | 0.55 | 4.40 | 65,713 |
| WQ0013181 | South Topsail Elementary School WWTF | WW Irrigation | 04 | 0.55 | 4.40 | 65,713 |
| WQ0013181 | South Topsail Elementary School WWTF | WW Irrigation | 05 | 0.55 | 4.40 | 65,713 |
| WQ0013181 | South Topsail Elementary School WWTF | WW Irrigation | 06 | 0.55 | 4.40 | 65,713 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 2 / (18) | 0.27 | 10.84 | 79,475 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 3 / (17) | 0.30 | 10.04 | 81,789 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 4 / (19,20) | 0.26 | 11.74 | 82,886 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 3 / (24) | 0.69 | 4.54 | 85,064 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 10 / (6) | 0.40 | 9.37 | 101,774 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 5 / (15) | 0.36 | 10.72 | 104,794 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 7 / (11) | 0.49 | 8.06 | 107,243 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 9 / (5) | 0.42 | 9.91 | 113,022 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 6 / (13) | 0.45 | 9.95 | 121,583 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 8 / (12) | 0.55 | 10.07 | 150,394 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 10 / (44) | 0.19 | 33.82 | 174,488 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 11 / (45) | 0.37 | 25.16 | 252,785 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 1 / (21,22) | 0.96 | 10.95 | 285,446 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 12 / (46) | 0.39 | 28.40 | 300,761 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | L - 1 (14,16) | 1.29 | 8.78 | 307,555 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 4 / (7,25) | 1.74 | 9.35 | 441,773 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 2 / (8,10,23,26) | 2.04 | 14.19 | 786,051 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 08 (PGM 7) | 0.72 | 44.20 | 864,158 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 9 / (42,43) | 1.02 | 33.50 | 927,862 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 06 (PGM 16) | 2.57 | 19.83 | 1,383,867 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 15 (PGM 3) | 0.55 | 94.40 | 1,409,851 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 13 (PGM 6) | 1.98 | 28.35 | 1,524,252 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 07 (PGM17) | 0.83 | 76.36 | 1,721,006 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 7 / (1,3,36,37) | 2.18 | 35.84 | 2,121,597 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 16 (PGM 8) | 1.03 | 83.38 | 2,332,048 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 02 (PGM 11) | 2.37 | 37.01 | 2,381,803 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 6 / (33,34,35) | 1.73 | 54.89 | 2,578,563 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 05 (PGM 4) | 3.99 | 24.12 | 2,613,296 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 5 / (27 - 32) | 5.25 | 21.88 | 3,119,213 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 14 (PGM 5) | 5.85 | 20.65 | 3,280,306 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 09 (PGM 13) | 5.11 | 27.35 | 3,795,042 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 11 (PGM 1) | 5.98 | 28.33 | 4,600,300 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | H - 8 / (2,4,38-41) | 4.26 | 39.94 | 4,620,150 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 17 (PGM 15) | 5.41 | 33.65 | 4,943,343 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 10 (PGM 12) | 5.89 | 42.36 | 6,775,005 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 01 (PGM 14) | 8.41 | 35.28 | 8,056,807 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 04 (PGM 9) | 10.21 | 32.01 | 8,874,621 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 03 (PGM 2) | 15.09 | 26.60 | 10,899,567 |
| WQ0013200 | Southeast Brunswick Sanitary District WWTF | Reclaimed | 12 (PGM 10) | 19.54 | 39.01 | 20,698,501 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 08 | 15.55 | 0.16 | 69,502 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 10 | 17.30 | 5.53 | 2,596,414 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 09 | 18.49 | 6.56 | 3,293,161 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | IB-3 | 14.97 | 13.01 | 5,288,479 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | IB-2 | 2.83 | 71.06 | 5,461,075 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | IB-1 | 4.00 | 57.19 | 6,211,651 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 02 | 10.27 | 59.54 | 16,604,189 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 04 | 10.42 | 60.23 | 17,041,937 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 05 | 11.20 | 60.31 | 18,341,960 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 01 | 11.73 | 59.12 | 18,830,889 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 06 | 12.03 | 58.21 | 19,015,231 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 07 | 14.16 | 52.81 | 20,306,769 |
| WQ0013348 | Bay River MSD-Pamlico Reg Fac | WW Irrigation | 03 | 15.24 | 56.97 | 23,575,970 |
| WQ0013398 | Sandpiper Bay WWTF | Reclaimed | B-PER | 5.50 | 5.71 | 852,780 |
| WQ0013398 | Sandpiper Bay WWTF | Reclaimed | B-GR | 2.50 | 41.42 | 2,811,826 |
| WQ0013398 | Sandpiper Bay WWTF | Reclaimed | B-RGH | 21.00 | 5.64 | 3,216,154 |
| WQ0013398 | Sandpiper Bay WWTF | Reclaimed | B-TEE | 28.00 | 6.70 | 5,094,144 |
| WQ0013398 | Sandpiper Bay WWTF | Reclaimed | B-FW | 23.00 | 23.81 | 14,870,501 |
| WQ0013502 | Tower Apartments | WW Irrigation | 02 | 0.02 | 7.38 | 4,008 |
| WQ0013502 | Tower Apartments | WW Irrigation | 04 | 0.02 | 12.59 | 6,837 |
| WQ0013502 | Tower Apartments | WW Irrigation | 03 | 0.02 | 43.53 | 23,641 |
| WQ0013502 | Tower Apartments | WW Irrigation | 01 | 0.02 | 85.97 | 46,689 |
| WQ0013676 | Beacons Reach WWTF | Reclaimed | 01 | 12.00 | 49.05 | 15,983,013 |
| WQ0013808 | Summerfield Shopping Center | WW Irrigation | 2 | 1.00 | 21.33 | 579,201 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0013808 | Summerfield Shopping Center | WW Irrigation | 1 | 0.65 | 32.96 | 581,753 |
| WQ0013921 | Rainbow Trailer Wash | WW Irrigation | 31121 | 22.60 | 0.33 | 202,517 |
| WQ0013921 | Rainbow Trailer Wash | WW Irrigation | 01B | 2.79 | 3.04 | 230,312 |
| WQ0013921 | Rainbow Trailer Wash | WW Irrigation | 01A | 3.25 | 3.07 | 270,932 |
| WQ0013948 | Frame Brick Inc-Rowan | WW Irrigation | 01 | 0.32 | 2.84 | 24,678 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 07 | 4.50 | 9.32 | 1,138,851 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 03 | 4.10 | 10.24 | 1,140,046 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 04 | 4.10 | 10.54 | 1,173,445 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 02 | 4.10 | 10.60 | 1,180,125 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 01 | 4.95 | 8.97 | 1,205,691 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 08 | 3.96 | 11.26 | 1,210,799 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 06 | 4.50 | 9.96 | 1,217,055 |
| WQ0014046 | Stovall Town-Sewer System | WW Irrigation | 05 | 4.50 | 10.15 | 1,240,272 |
| WQ0014091 | White Oak Truck Wash | WW Irrigation | 01 | 2.22 | 9.13 | 550,379 |
| WQ0014091 | White Oak Truck Wash | WW Irrigation | 02 | 3.56 | 7.59 | 733,720 |
| WQ0014091 | White Oak Truck Wash | WW Irrigation | 3 | 3.81 | 8.19 | 847,320 |
| WQ0014091 | White Oak Truck Wash | WW Irrigation | 5 | 3.30 | 13.63 | 1,221,373 |
| WQ0014091 | White Oak Truck Wash | WW Irrigation | 6 | 5.59 | 8.32 | 1,262,913 |
| WQ0014091 | White Oak Truck Wash | WW Irrigation | 4 | 3.94 | 12.76 | 1,365,165 |
| WQ0014247 | Register Truck & Trailer Wash | WW Irrigation | 01 | 6.54 | 6.45 | 1,145,449 |
| WQ0014247 | Register Truck & Trailer Wash | WW Irrigation | 02 | 11.59 | 6.81 | 2,143,231 |
| WQ0014306 | Eagle Creek | Reclaimed | TEES | 14.25 | 0.15 | 58,042 |
| WQ0014306 | Eagle Creek | Reclaimed | GREENS | 21.00 | 0.12 | 68,429 |
| WQ0014306 | Eagle Creek | Reclaimed | FAIRWAYS | 65.00 | 0.98 | 1,729,728 |
| WQ0014306 | Eagle Creek | Reclaimed | INFILTRATION BASIN | 4.00 | 161.80 | 17,573,852 |
| WQ0014391 | Builders First Source | WW Irrigation | 01 | 0.38 | 18.83 | 194,300 |
| WQ0014391 | Builders First Source | WW Irrigation | 02 | 0.38 | 18.83 | 194,300 |
| WQ0014391 | Builders First Source | WW Irrigation | 03 | 0.38 | 18.83 | 194,300 |
| WQ0014391 | Builders First Source | WW Irrigation | 04 | 0.38 | 18.83 | 194,300 |
| WQ0014550 | Camp Don Lee-Arapahoe WWTP De | High-Rate Infiltration | 01 | 1.80 | 40.88 | 1,998,228 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 17 SOUTH | 1.40 | 22.69 | 862,393 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 15 SOUTH | 1.80 | 24.10 | 1,177,904 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 04 SOUTH | 1.80 | 24.37 | 1,191,003 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 05 SOUTH | 1.80 | 24.37 | 1,191,003 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 01 NORTH | 2.10 | 22.81 | 1,300,717 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 09 SOUTH | 2.10 | 22.98 | 1,310,297 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 15 NORTH | 2.10 | 23.41 | 1,334,818 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 04 NORTH | 2.10 | 23.67 | 1,349,644 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 05 NORTH | 2.10 | 23.67 | 1,349,644 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 08 NORTH | 2.30 | 23.03 | 1,438,086 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 08 SOUTH | 2.30 | 23.03 | 1,438,086 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 01 SOUTH | 2.30 | 23.21 | 1,449,640 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 07 NORTH | 2.30 | 24.19 | 1,511,033 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 07 SOUTH | 2.30 | 24.19 | 1,511,033 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 02 SOUTH | 2.30 | 24.46 | 1,527,396 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 10 SOUTH | 2.50 | 23.38 | 1,587,100 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 02 NORTH | 2.50 | 23.87 | 1,620,364 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 11 SOUTH | 2.80 | 22.26 | 1,692,092 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 10 NORTH | 2.80 | 22.86 | 1,738,092 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 09 NORTH | 2.80 | 23.14 | 1,759,152 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 03 NORTH | 2.80 | 24.18 | 1,838,150 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 03 SOUTH | 2.80 | 24.18 | 1,838,150 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 11 NORTH | 3.00 | 23.10 | 1,881,482 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 14 NORTH | 3.00 | 23.39 | 1,905,335 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 14 SOUTH | 3.00 | 23.39 | 1,905,335 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 16 SOUTH | 3.00 | 23.56 | 1,919,183 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 12 NORTH | 3.20 | 22.41 | 1,947,114 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 12 SOUTH | 3.20 | 22.42 | 1,948,331 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 13 NORTH | 3.20 | 22.42 | 1,948,331 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 13 SOUTH | 3.20 | 22.42 | 1,948,331 |
| WQ0014565 | Sanford, NC Poultry Processing Plant | WW Irrigation | 06 NORTH | 3.40 | 22.58 | 2,084,689 |
| WQ0014756 | Trinity American Corp-Randolp | WW Irrigation | 01 | 0.17 | 0.95 | 4,385 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0014756 | Trinity American Corp-Randolp | WW Irrigation | 05 | 0.21 | 2.94 | 16,765 |
| WQ0014756 | Trinity American Corp-Randolp | WW Irrigation | 04 | 0.18 | 3.53 | 17,254 |
| WQ0014756 | Trinity American Corp-Randolp | WW Irrigation | 03 | 0.25 | 2.68 | 18,193 |
| WQ0014756 | Trinity American Corp-Randolp | WW Irrigation | 06 | 0.21 | 3.20 | 18,248 |
| WQ0014756 | Trinity American Corp-Randolp | WW Irrigation | 07 | 0.22 | 3.27 | 19,535 |
| WQ0014756 | Trinity American Corp-Randolp | WW Irrigation | 02 | 0.26 | 2.99 | 21,110 |
| WQ0014785 | Sampson Co Boe-Midway Middle | WW Irrigation | 1 | 0.87 | 12.87 | 304,044 |
| WQ0014928 | Highway 97 Truckwash | WW Irrigation | 02 | 8.25 | 2.18 | 489,042 |
| WQ0015010 | TDM Truck Wash | WW Irrigation | 01 | 2.00 | 3.20 | 173,787 |
| WQ0015030 | L L Parks Livestock Inc - Delway Site | WW Irrigation | F2 | 13.61 | 16.88 | 6,238,339 |
| WQ0015052 | Village at Ocean Hill | Reclaimed | A | 0.46 | 888.88 | 11,103,035 |
| WQ0015053 | Moyock Commons | WW Irrigation | 01 | 0.63 | 48.24 | 825,205 |
| WQ0015053 | Moyock Commons | WW Irrigation | 02 | 0.63 | 144.92 | 2,479,182 |
| WQ0015393 | Lee's Long Term Care Facility | WW Irrigation | 01 | 0.30 | 32.35 | 263,532 |
| WQ0015393 | Lee's Long Term Care Facility | WW Irrigation | 02 | 0.30 | 32.35 | 263,532 |
| WQ0015393 | Lee's Long Term Care Facility | WW Irrigation | 03 | 0.30 | 32.35 | 263,532 |
| WQ0015393 | Lee's Long Term Care Facility | WW Irrigation | 04 | 0.30 | 32.35 | 263,532 |
| WQ0015393 | Lee's Long Term Care Facility | WW Irrigation | 05 | 0.30 | 32.35 | 263,532 |
| WQ0015393 | Lee's Long Term Care Facility | WW Irrigation | 06 | 0.30 | 32.35 | 263,532 |
| WQ0015491 | Caraway Speedway | WW Irrigation | 04 | 0.49 | 0.34 | 4,491 |
| WQ0015491 | Caraway Speedway | WW Irrigation | 02 | 0.49 | 0.41 | 5,489 |
| WQ0015491 | Caraway Speedway | WW Irrigation | 03 | 0.49 | 0.45 | 5,988 |
| WQ0015491 | Caraway Speedway | WW Irrigation | 01 | 0.49 | 1.31 | 17,445 |
| WQ0015515 | Bear Pen Village | WW Irrigation | 04 | 1.50 | 3.03 | 123,331 |
| WQ0015515 | Bear Pen Village | WW Irrigation | 02 | 1.50 | 3.10 | 126,100 |
| WQ0015515 | Bear Pen Village | WW Irrigation | 01 | 1.50 | 3.25 | 132,259 |
| WQ0015515 | Bear Pen Village | WW Irrigation | 03 | 1.50 | 3.83 | 155,948 |
| WQ0015587 | Harpers Crossroads Seafood Restaurant | WW Irrigation | 01 | 2.20 | 1.92 | 114,700 |
| WQ0015929 | High Vista Falls WWTS | Reclaimed | 01 | 18.31 | 7.90 | 3,927,840 |
| WQ0015931 | The Village at the Point | Reclaimed | D-10 | 0.35 | 23.26 | 221,063 |
| WQ0015931 | The Village at the Point | Reclaimed | D-5 | 0.35 | 30.57 | 290,537 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0015931 | The Village at the Point | Reclaimed | D-6 | 0.35 | 30.57 | 290,537 |
| WQ0015931 | The Village at the Point | Reclaimed | D-3 | 0.35 | 30.60 | 290,822 |
| WQ0015931 | The Village at the Point | Reclaimed | D-4 | 0.35 | 30.60 | 290,822 |
| WQ0015931 | The Village at the Point | Reclaimed | D-7 | 0.35 | 30.60 | 290,822 |
| WQ0015931 | The Village at the Point | Reclaimed | D-8 | 0.35 | 30.60 | 290,822 |
| WQ0015931 | The Village at the Point | Reclaimed | D-9 | 0.35 | 30.60 | 290,822 |
| WQ0015931 | The Village at the Point | Reclaimed | D-1 | 0.35 | 30.66 | 291,393 |
| WQ0015931 | The Village at the Point | Reclaimed | D-2 | 0.35 | 30.66 | 291,393 |
| WQ0016053 | Prestage Farms Inc-Truck Wash | WW Irrigation | 03A-CB | 2.06 | 19.91 | 1,113,890 |
| WQ0016053 | Prestage Farms Inc-Truck Wash | WW Irrigation | 02A-CB | 2.50 | 19.60 | 1,330,560 |
| WQ0016053 | Prestage Farms Inc-Truck Wash | WW Irrigation | 01A-CB | 3.38 | 19.60 | 1,798,917 |
| WQ0016165 | City of Lexington Conjunctive-Use Wastewater Surface Irrigation System | WW Irrigation | 01 | 3.84 | 30.76 | 3,207,421 |
| WQ0016167 | Southern Produce Washwater System | WW Irrigation | 01C | 2.17 | 4.52 | 266,340 |
| WQ0016167 | Southern Produce Washwater System | WW Irrigation | 01A | 4.19 | 5.10 | 580,260 |
| WQ0016167 | Southern Produce Washwater System | WW Irrigation | 01B | 5.33 | 5.10 | 738,135 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 07 | 0.97 | 14.23 | 374,682 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 10 | 1.12 | 13.49 | 410,360 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 06 | 1.07 | 14.23 | 413,367 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 05 | 1.10 | 14.13 | 421,910 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 02 | 1.15 | 14.22 | 444,179 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 13 | 1.16 | 14.98 | 471,823 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 12 | 1.23 | 14.23 | 475,112 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 08 | 1.25 | 14.23 | 482,837 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 04 | 1.28 | 14.23 | 494,425 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 01 | 1.34 | 14.22 | 517,565 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 11 | 1.43 | 14.38 | 558,307 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 03 | 1.29 | 17.85 | 625,233 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | 09 | 1.61 | 14.38 | 628,627 |
| WQ0016376 | S & J Villari Livestock Processing Facility - Warsaw | WW Irrigation | CP | 23.11 | 13.20 | 8,284,724 |
| WQ0017224 | Ginguite Woods | Reclaimed | 8 | 0.03 | 30.16 | 22,112 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0017224 | Ginguite Woods | Reclaimed | 13 | 0.03 | 30.16 | 25,388 |
| WQ0017224 | Ginguite Woods | Reclaimed | 10 | 0.03 | 30.16 | 27,026 |
| WQ0017224 | Ginguite Woods | Reclaimed | 12 | 0.04 | 30.16 | 28,664 |
| WQ0017224 | Ginguite Woods | Reclaimed | 2 | 0.04 | 30.16 | 31,121 |
| WQ0017224 | Ginguite Woods | Reclaimed | 15 | 0.04 | 30.16 | 34,397 |
| WQ0017224 | Ginguite Woods | Reclaimed | 11 | 0.04 | 30.16 | 35,216 |
| WQ0017224 | Ginguite Woods | Reclaimed | 3 | 0.05 | 30.16 | 36,854 |
| WQ0017224 | Ginguite Woods | Reclaimed | 30 | 0.05 | 30.16 | 40,130 |
| WQ0017224 | Ginguite Woods | Reclaimed | 19 | 0.05 | 30.16 | 40,949 |
| WQ0017224 | Ginguite Woods | Reclaimed | 16 | 0.06 | 30.16 | 45,044 |
| WQ0017224 | Ginguite Woods | Reclaimed | 17 | 0.07 | 30.16 | 53,233 |
| WQ0017224 | Ginguite Woods | Reclaimed | 1 | 0.07 | 30.16 | 59,785 |
| WQ0017224 | Ginguite Woods | Reclaimed | 14 | 0.08 | 30.16 | 62,242 |
| WQ0017224 | Ginguite Woods | Reclaimed | 29 | 0.08 | 30.16 | 63,880 |
| WQ0017224 | Ginguite Woods | Reclaimed | 28 | 0.08 | 30.16 | 66,337 |
| WQ0017224 | Ginguite Woods | Reclaimed | 4 | 0.08 | 30.16 | 67,156 |
| WQ0017224 | Ginguite Woods | Reclaimed | 6 | 0.08 | 30.16 | 67,156 |
| WQ0017224 | Ginguite Woods | Reclaimed | 9 | 0.10 | 30.16 | 78,621 |
| WQ0017224 | Ginguite Woods | Reclaimed | 23 | 0.10 | 30.16 | 82,716 |
| WQ0017224 | Ginguite Woods | Reclaimed | 24 | 0.11 | 30.16 | 85,992 |
| WQ0017224 | Ginguite Woods | Reclaimed | 25 | 0.12 | 30.16 | 95,820 |
| WQ0017224 | Ginguite Woods | Reclaimed | 5 | 0.12 | 30.16 | 98,277 |
| WQ0017224 | Ginguite Woods | Reclaimed | 20 | 0.12 | 30.16 | 99,096 |
| WQ0017224 | Ginguite Woods | Reclaimed | 21 | 0.15 | 30.16 | 125,303 |
| WQ0017224 | Ginguite Woods | Reclaimed | 7 | 0.16 | 30.16 | 126,941 |
| WQ0017224 | Ginguite Woods | Reclaimed | 18 | 0.16 | 30.16 | 127,760 |
| WQ0017224 | Ginguite Woods | Reclaimed | 22 | 0.17 | 30.16 | 135,131 |
| WQ0017224 | Ginguite Woods | Reclaimed | 26 | 0.26 | 30.16 | 214,571 |
| WQ0017224 | Ginguite Woods | Reclaimed | 27 | 0.29 | 30.16 | 235,864 |
| WQ0017635 | Martin Marietta Quarry & Mackilwean Turf Farm | Reclaimed | 25 | 3.75 | 0.86 | 87,573 |
| WQ0017635 | Martin Marietta Quarry & Mackilwean Turf Farm | Reclaimed | 3 | 5.24 | 2.58 | 367,104 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0017635 | Martin Marietta Quarry & Mackilwean Turf Farm | Reclaimed | 2 | 7.33 | 2.21 | 439,880 |
| WQ0017635 | Martin Marietta Quarry & Mackilwean Turf Farm | Reclaimed | 12 | 4.97 | 4.95 | 668,036 |
| WQ0017635 | Martin Marietta Quarry & Mackilwean Turf Farm | Reclaimed | 13 | 5.76 | 6.45 | 1,008,836 |
| WQ0017635 | Martin Marietta Quarry & Mackilwean Turf Farm | Reclaimed | 1 | 56.20 | 9.84 | 15,016,537 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 12 | 0.22 | 6.16 | 36,799 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 11 | 0.37 | 3.71 | 37,265 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 13 | 0.32 | 4.82 | 41,874 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 14 | 0.34 | 4.56 | 42,091 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 09 | 0.31 | 5.10 | 42,914 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 15 | 0.64 | 2.48 | 43,134 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 10 | 0.38 | 4.18 | 43,142 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 08 | 0.41 | 3.88 | 43,164 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 02 | 0.53 | 3.01 | 43,262 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 16 | 0.49 | 3.26 | 43,416 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 07 | 0.34 | 4.74 | 43,725 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 05 | 0.34 | 4.85 | 44,740 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 06 | 0.33 | 5.01 | 44,876 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 01 | 0.51 | 3.35 | 46,448 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 03 | 0.21 | 8.18 | 46,640 |
| WQ0017824 | Uwharrie Middle School | WW Irrigation | 04 | 0.19 | 9.05 | 46,707 |
| WQ0017912 | Central NC Bsa-Camp Barnhardt | WW Irrigation | 01 | 6.00 | 0.48 | 78,204 |
| WQ0018146 | The Preserve at Jordan Lake | Reclaimed | 04 | 19.50 | 0.33 | 174,738 |
| WQ0018146 | The Preserve at Jordan Lake | Reclaimed | 01 | 3.50 | 9.17 | 871,517 |
| WQ0018146 | The Preserve at Jordan Lake | Reclaimed | 02 | 54.50 | 14.22 | 21,044,300 |
| WQ0018173 | Montessori School Of Raleigh | WW Irrigation | 01 | 0.52 | 7.14 | 100,818 |
| WQ0018420 | Ocean Club WWTF | High-Rate Infiltration | ZONE 1(EAST) | 0.59 | 217.96 | 3,491,977 |
| WQ0018420 | Ocean Club WWTF | High-Rate Infiltration | ZONE 2 (WEST) | 0.71 | 184.57 | 3,558,402 |
| WQ0018420 | Ocean Club WWTF | High-Rate Infiltration | ZONE 3(CENTER) | 0.63 | 209.40 | 3,582,162 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 14 | 0.35 | 7.87 | 74,796 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 08 | 0.38 | 7.38 | 76,151 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 05 | 0.40 | 7.52 | 81,680 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 16 | 0.51 | 5.91 | 81,846 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 04 | 0.33 | 9.15 | 81,992 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 12 | 0.46 | 6.60 | 82,440 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 11 | 0.33 | 9.25 | 82,888 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 07 | 0.38 | 8.06 | 83,168 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 06 | 0.35 | 8.76 | 83,255 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 09 | 0.46 | 6.67 | 83,315 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 13 | 0.32 | 9.59 | 83,331 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 01 | 0.39 | 7.87 | 83,345 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 10 | 0.38 | 8.08 | 83,375 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 03 | 0.36 | 8.53 | 83,385 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 15 | 0.35 | 8.79 | 83,540 |
| WQ0018497 | Union Co Boe-Fairview Elem | WW Irrigation | 02 | 0.29 | 10.61 | 83,551 |
| WQ0018708 | Lake Creek Corp-Baytree Lakes | WW Irrigation | 1 | 5.08 | 96.99 | 13,379,442 |
| WQ0018709 | Wilson Reclaimed Water Distribution System | Reclaimed | F | 14.20 | 4.55 | 1,754,438 |
| WQ0018709 | Wilson Reclaimed Water Distribution System | Reclaimed | CU-01 | 97.46 | 13.20 | 34,933,228 |
| WQ0018992 | Southwinds Condos WWTF | High-Rate Infiltration | 02 | 0.13 | 684.72 | 2,417,110 |
| WQ0018992 | Southwinds Condos WWTF | High-Rate Infiltration | 01 | 0.13 | 684.74 | 2,417,166 |
| WQ0019095 | Colfax Furniture | WW Irrigation | 02 | 0.13 | 3.04 | 10,731 |
| WQ0019095 | Colfax Furniture | WW Irrigation | 03 | 0.13 | 3.04 | 10,731 |
| WQ0019095 | Colfax Furniture | WW Irrigation | 01 | 0.13 | 3.31 | 11,684 |
| WQ0019179 | Washington City | Reclaimed | 1 | 1.15 | 0.73 | 22,640 |
| WQ0019229 | Town of Warsaw Reclaimed Water Utilization System | Reclaimed | 1 | 10.00 | 0.13 | 35,301 |
| WQ0019331 | NC Aquarium at Pine Knoll Shores | Reclaimed | 3 | 0.10 | 162.02 | 439,958 |
| WQ0019331 | NC Aquarium at Pine Knoll Shores | Reclaimed | 4 | 0.10 | 162.02 | 439,958 |
| WQ0019331 | NC Aquarium at Pine Knoll Shores | Reclaimed | 1 | 0.10 | 178.63 | 485,065 |
| WQ0019331 | NC Aquarium at Pine Knoll Shores | Reclaimed | 2 | 0.10 | 178.63 | 485,065 |
| WQ0019569 | Colvard Farms | Reclaimed | 16 | 0.60 | 15.00 | 244,389 |
| WQ0019569 | Colvard Farms | Reclaimed | 15 | 1.70 | 6.44 | 297,285 |
| WQ0019569 | Colvard Farms | Reclaimed | 11 | 0.30 | 43.09 | 351,023 |
| WQ0019569 | Colvard Farms | Reclaimed | 24 | 0.50 | 27.18 | 369,027 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0019569 | Colvard Farms | Reclaimed | 7 | 0.90 | 16.27 | 397,620 |
| WQ0019569 | Colvard Farms | Reclaimed | 8 | 1.00 | 14.81 | 402,155 |
| WQ0019569 | Colvard Farms | Reclaimed | 9 | 0.50 | 30.31 | 411,523 |
| WQ0019569 | Colvard Farms | Reclaimed | 01 | 2.27 | 7.00 | 431,482 |
| WQ0019569 | Colvard Farms | Reclaimed | 6 | 1.40 | 11.50 | 437,184 |
| WQ0019569 | Colvard Farms | Reclaimed | 22 | 2.00 | 8.56 | 464,881 |
| WQ0019569 | Colvard Farms | Reclaimed | 35 | 2.00 | 10.00 | 543,086 |
| WQ0019569 | Colvard Farms | Reclaimed | 14 | 2.20 | 12.57 | 750,925 |
| WQ0019569 | Colvard Farms | Reclaimed | 13 | 1.40 | 19.94 | 758,039 |
| WQ0019569 | Colvard Farms | Reclaimed | 12 | 1.50 | 20.17 | 821,553 |
| WQ0019573 | Rogers Grove Baptist Church | WW Irrigation | 1 | 0.26 | 2.74 | 19,345 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | ROADWAY DUST CNTL | 3.65 | 1.35 | 133,803 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | AG CENTER | 3.65 | 2.15 | 213,093 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH1 - 09 | 2.96 | 6.44 | 517,626 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH1 - 10 | 6.13 | 9.21 | 1,533,058 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH1 - 03 | 7.33 | 9.36 | 1,863,023 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | LIVESTOCK AREA | 10.48 | 7.29 | 2,074,566 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH1 - 04 | 8.94 | 8.93 | 2,167,841 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH2 - 01 | 11.87 | 10.71 | 3,452,062 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH2 - 07 | 9.17 | 16.15 | 4,022,100 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH1 - 01 | 23.03 | 7.67 | 4,796,536 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH1 - 08 | 29.69 | 7.21 | 5,812,779 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH2 - 06 | 9.13 | 25.16 | 6,237,633 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH2 - 05 | 8.30 | 28.06 | 6,324,179 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH2 - 04 | 18.08 | 16.50 | 8,100,667 |
| WQ0019632 | Johnston County Reclaimed Water Facility | Reclaimed | PH1 - 02 | 53.35 | 9.97 | 14,443,351 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 13A | 2.80 | 23.87 | 1,814,884 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 1 | 2.98 | 23.87 | 1,931,555 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 2 | 3.28 | 23.87 | 2,126,007 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 3 | 3.43 | 23.87 | 2,223,233 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 12 | 3.43 | 23.87 | 2,223,233 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 4 | 3.73 | 23.87 | 2,417,685 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 5 | 4.03 | 23.87 | 2,612,136 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 6 | 4.18 | 23.87 | 2,709,362 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 8 | 4.18 | 23.87 | 2,709,362 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 14 | 4.18 | 23.87 | 2,709,362 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 7 | 4.48 | 23.87 | 2,903,814 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 11 | 4.78 | 23.87 | 3,098,266 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 9 | 4.93 | 23.87 | 3,195,492 |
| WQ0019665 | Swan Quarter Sd-Swan Quarter | WW Irrigation | 10 | 5.08 | 23.87 | 3,292,718 |
| WQ0019704 | Old Chatham Golf Club-Old CHA | WW Irrigation | 01 | 4.10 | 19.23 | 2,140,925 |
| WQ0019754 | Luck Stone-Pittsboro Plant - Domestic Wastewater | WW Irrigation | ZONE A | 0.17 | 15.06 | 69,520 |
| WQ0019755 | Oak Ridge Commons | Reclaimed | 2 | 2.01 | 4.63 | 252,706 |
| WQ0019755 | Oak Ridge Commons | Reclaimed | N | 7.32 | 17.06 | 3,391,005 |
| WQ0019782 | YMCA Camp Weaver | WW Irrigation | 02 | 0.37 | 6.33 | 63,598 |
| WQ0019782 | YMCA Camp Weaver | WW Irrigation | 01 | 0.37 | 12.99 | 130,512 |
| WQ0019782 | YMCA Camp Weaver | WW Irrigation | 03 | 0.45 | 15.10 | 184,513 |
| WQ0019782 | YMCA Camp Weaver | WW Irrigation | 04 | 0.45 | 16.20 | 197,955 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 2/2B-2 | 5.84 | 9.26 | 1,468,460 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 2/2B-1 | 8.63 | 10.02 | 2,348,102 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 2/2A-1 | 6.35 | 17.40 | 3,000,277 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 1/1C | 8.07 | 17.31 | 3,793,228 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 1/1B | 9.62 | 17.76 | 4,639,342 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 1/1A | 9.82 | 17.47 | 4,658,464 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 3/3A | 9.44 | 18.96 | 4,860,139 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 2/2A-2 | 12.20 | 16.02 | 5,307,142 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 3/3B | 11.79 | 18.04 | 5,775,488 |
| WQ0019907 | Holly Ridge WWTF | WW Irrigation | 2/2A-3 | 11.66 | 18.91 | 5,987,265 |
| WQ0019908 | Johnston Co Country Club | Reclaimed | 1 | 3.00 | 3.74 | 304,671 |
| WQ0019908 | Johnston Co Country Club | Reclaimed | 2 | 3.00 | 5.34 | 435,012 |
| WQ0019908 | Johnston Co Country Club | Reclaimed | 5 | 5.00 | 6.15 | 834,994 |
| WQ0019908 | Johnston Co Country Club | Reclaimed | 3 | 30.00 | 4.76 | 3,877,632 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0019908 | Johnston Co Country Club | Reclaimed | 4 | 55.00 | 13.88 | 20,729,582 |
| WQ0020084 | The Villas Condominums | High-Rate Infiltration | POND NO. 2 | 0.04 | 521.07 | 565,966 |
| WQ0020084 | The Villas Condominums | High-Rate Infiltration | POND NO. 1 | 0.04 | 961.54 | 1,044,395 |
| WQ0020248 | Golf Course Irrigation-Sanford | Reclaimed | 1 | 56.80 | 5.19 | 7,998,697 |
| WQ0020543 | KOA Campground WWTF | WW Irrigation | 2 | 1.72 | 4.51 | 210,641 |
| WQ0020809 | Farmville Golf & Country Club | Reclaimed | 1 | 66.23 | 5.25 | 9,439,411 |
| WQ0020881 | Lake Norman State Park Swim Beach | WW Irrigation | ZONE B | 1.72 | 5.83 | 272,292 |
| WQ0020881 | Lake Norman State Park Swim Beach | WW Irrigation | ZONE A | 1.72 | 6.07 | 283,502 |
| WQ0020926 | Warren County Transfer Station | WW Irrigation | 8 | 1.80 | 2.26 | 110,464 |
| WQ0021204 | N. Chatham Vol. Fire Department - Hwy 64 | WW Irrigation | 1/1 | 0.15 | 3.87 | 15,763 |
| WQ0021311 | Bladenboro Wastewater Treatment Plant | WW Irrigation | 2 | 19.12 | 4.71 | 2,445,385 |
| WQ0021311 | Bladenboro Wastewater Treatment Plant | WW Irrigation | 1 | 28.50 | 4.18 | 3,234,890 |
| WQ0021352 | Westmoore Family Restauant | WW Irrigation | 1 | 1.54 | 15.39 | 643,573 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | PRACTICE GREENS | 0.70 | 15.84 | 301,087 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | PRACTICE AREAS | 2.30 | 6.34 | 395,964 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | DRIVING RANGE FAIRWA | 6.80 | 3.72 | 686,895 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | FRONT 9 GREENS | 1.90 | 16.13 | 832,197 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | BACK 9 GREENS | 1.90 | 17.51 | 903,396 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | DRIVING RANGE TEES | 4.20 | 10.08 | 1,149,604 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | BACK 9 FAIRWAYS | 59.60 | 9.83 | 15,908,827 |
| WQ0021934 | Hasentree Golf Community, Phase 1 & 2A | Reclaimed | FRONT 9 FAIRWAYS | 68.40 | 9.65 | 17,923,458 |
| WQ0021950 | Clegg's Chapel Drip WWTS | WW Irrigation | 01 | 0.53 | 7.89 | 113,551 |
| WQ0022052 | Hampstead Pines Subdivision WWTF | Reclaimed | 1 | 3.82 | 33.69 | 3,494,643 |
| WQ0022052 | Hampstead Pines Subdivision WWTF | WW Irrigation | 1 | 3.82 | 33.69 | 3,494,643 |
| WQ0022384 | Contentnea Sewerage District WWTP | WW Irrigation | SOUTHERN ZONE | 1.64 | 1.04 | 46,314 |
| WQ0022384 | Contentnea Sewerage District WWTP | WW Irrigation | NORTHERN ZONE | 1.72 | 2.03 | 94,812 |
| WQ0022384 | Contentnea Sewerage District WWTP | WW Irrigation | GUN FIELD # 2 North Zone 10 | 3.75 | 2.04 | 207,730 |
| WQ0022384 | Contentnea Sewerage District WWTP | WW Irrigation | GUN FIELD # 2 North Zone 11 | 3.75 | 2.04 | 207,730 |
| WQ0022384 | Contentnea Sewerage District WWTP | WW Irrigation | GUN FIELD # 2 North Zone 12 | 3.75 | 2.04 | 207,730 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0022384 | Contentnea Sewerage District WWTP | WW Irrigation | GUN FIELD # 2 | 11.25 | 2.04 | 623,191 |
| WQ0022501 | Town of Benson Reclaimed Water System | Reclaimed | 5 | 1.56 | 0.38 | 16,097 |
| WQ0022501 | Town of Benson Reclaimed Water System | Reclaimed | 1 | 1.40 | 5.08 | 193,121 |
| WQ0022501 | Town of Benson Reclaimed Water System | Reclaimed | 3 | 1.70 | 4.61 | 212,808 |
| WQ0022501 | Town of Benson Reclaimed Water System | Reclaimed | 2 | 2.10 | 10.38 | 591,909 |
| WQ0022523 | H&T Truck Wash | WW Irrigation | 1 | 2.55 | 6.66 | 461,210 |
| WQ0022697 | Scotland Neck WWTP | Reclaimed | 1 | 5.35 | 0.33 | 47,941 |
| WQ0022697 | Scotland Neck WWTP | Reclaimed | 2 | 5.20 | 0.34 | 48,009 |
| WQ0022725 | Slash Condominiums | Reclaimed | 04 | 0.03 | 5.08 | 4,138 |
| WQ0022725 | Slash Condominiums | Reclaimed | 06 | 0.04 | 4.62 | 5,018 |
| WQ0022725 | Slash Condominiums | Reclaimed | 03 | 0.04 | 5.23 | 5,676 |
| WQ0022725 | Slash Condominiums | Reclaimed | 05 | 0.05 | 5.11 | 6,938 |
| WQ0022725 | Slash Condominiums | Reclaimed | 08 | 0.04 | 7.34 | 7,972 |
| WQ0022725 | Slash Condominiums | Reclaimed | 14 | 0.04 | 7.34 | 7,972 |
| WQ0022725 | Slash Condominiums | Reclaimed | 01 | 0.04 | 7.35 | 7,983 |
| WQ0022725 | Slash Condominiums | Reclaimed | 02 | 0.04 | 7.77 | 8,440 |
| WQ0022725 | Slash Condominiums | Reclaimed | 07 | 0.05 | 7.31 | 9,925 |
| WQ0022725 | Slash Condominiums | Reclaimed | 09 | 0.05 | 7.34 | 9,966 |
| WQ0022725 | Slash Condominiums | Reclaimed | 11 | 0.05 | 7.34 | 9,966 |
| WQ0022725 | Slash Condominiums | Reclaimed | 12 | 0.05 | 7.55 | 10,244 |
| WQ0022725 | Slash Condominiums | Reclaimed | 16 | 0.05 | 7.80 | 10,590 |
| WQ0022725 | Slash Condominiums | Reclaimed | 10 | 0.05 | 7.87 | 10,685 |
| WQ0022725 | Slash Condominiums | Reclaimed | 13 | 0.06 | 7.34 | 11,959 |
| WQ0022725 | Slash Condominiums | Reclaimed | 15 | 0.06 | 7.34 | 11,959 |
| WQ0022785 | Lattisville Grove Baptist Church | WW Irrigation | 1/1 | 1.04 | 4.86 | 137,249 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | CH | 1.34 | 3.45 | 125,534 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | CH | 1.34 | 3.45 | 125,534 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-11 | 4.69 | 1.87 | 238,151 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-11 | 4.69 | 1.87 | 238,151 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-12B | 1.54 | 7.10 | 296,905 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-12B | 1.54 | 7.10 | 296,905 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-13B | 2.20 | 5.07 | 302,879 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-13B | 2.20 | 5.07 | 302,879 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-2 | 5.56 | 2.13 | 321,583 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-2 | 5.56 | 2.13 | 321,583 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-3B | 3.01 | 4.65 | 380,065 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-3B | 3.01 | 4.65 | 380,065 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | DR | 14.90 | 0.97 | 392,461 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | DR | 14.90 | 0.97 | 392,461 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-12 | 2.62 | 6.81 | 484,492 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-12 | 2.62 | 6.81 | 484,492 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-8 | 4.06 | 5.39 | 594,228 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-8 | 4.06 | 5.39 | 594,228 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-11B | 4.20 | 6.34 | 723,064 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-11B | 4.20 | 6.34 | 723,064 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-2B | 4.22 | 6.53 | 748,280 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-2B | 4.22 | 6.53 | 748,280 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-15 | 4.79 | 6.17 | 802,526 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-15 | 4.79 | 6.17 | 802,526 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-10B | 5.69 | 5.43 | 838,978 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-10B | 5.69 | 5.43 | 838,978 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-6 | 4.94 | 8.19 | 1,098,624 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-6 | 4.94 | 8.19 | 1,098,624 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-10 | 5.76 | 7.15 | 1,118,322 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-10 | 5.76 | 7.15 | 1,118,322 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-7 | 16.48 | 2.70 | 1,208,257 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-7 | 16.48 | 2.70 | 1,208,257 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-9 | 10.11 | 4.58 | 1,257,347 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-9 | 10.11 | 4.58 | 1,257,347 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-17 | 5.37 | 9.03 | 1,316,741 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-17 | 5.37 | 9.03 | 1,316,741 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-13 | 8.49 | 5.81 | 1,339,437 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-13 | 8.49 | 5.81 | 1,339,437 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-11C | 9.37 | 5.65 | 1,437,561 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-11C | 9.37 | 5.65 | 1,437,561 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-3 | 10.66 | 5.30 | 1,534,163 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-3 | 10.66 | 5.30 | 1,534,163 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-4 | 7.18 | 8.14 | 1,587,038 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-4 | 7.18 | 8.14 | 1,587,038 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-1 | 11.40 | 5.54 | 1,714,956 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-1 | 11.40 | 5.54 | 1,714,956 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-14 | 9.91 | 6.78 | 1,824,491 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-14 | 9.91 | 6.78 | 1,824,491 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-16 | 9.05 | 7.43 | 1,825,895 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-16 | 9.05 | 7.43 | 1,825,895 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-5 | 13.22 | 8.48 | 3,044,147 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-5 | 13.22 | 8.48 | 3,044,147 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-18 | 17.80 | 6.88 | 3,325,422 |
| WQ0022870 | Buck Mountain Service Area | Reclaimed | F-18 | 17.80 | 6.88 | 3,325,422 |
| WQ0023203 | Rich Square WWTP | WW Irrigation | 1 | 2.81 | 4.24 | 323,527 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 5 | 6.34 | 6.22 | 1,070,824 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 7 | 5.38 | 7.73 | 1,129,276 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 2 | 9.17 | 4.70 | 1,170,323 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 8 | 9.71 | 5.09 | 1,342,071 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 3 | 7.24 | 8.08 | 1,588,504 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 6 | 10.89 | 6.79 | 2,007,872 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 4 | 19.76 | 4.59 | 2,462,850 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 1 | 18.01 | 6.05 | 2,958,745 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 1 | 87.00 | 6.05 | 14,292,658 |
| WQ0023213 | Lexington Golf Course - Wastewater Reuse System | Reclaimed | 1 | 87.00 | 6.05 | 14,292,658 |
| WQ0023261 | Swansboro WWTF | Reclaimed | 2A | 2.88 | 385.19 | 30,123,726 |
| WQ0023261 | Swansboro WWTF | Reclaimed | 2B | 3.88 | 329.40 | 34,705,090 |
| WQ0023261 | Swansboro WWTF | Reclaimed | 1 | 5.00 | 261.75 | 35,538,429 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0023261 | Swansboro WWTF | Reclaimed | 3 | 3.48 | 380.17 | 35,925,034 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD H | 2.35 | 1.29 | 82,318 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | ZONE 1 | 0.52 | 8.58 | 121,152 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | ZONE 3 | 1.60 | 3.03 | 131,644 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | ZONE 5 | 1.28 | 3.96 | 137,640 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD F | 2.92 | 1.99 | 157,788 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD G | 2.93 | 2.38 | 189,358 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | ZONE 4 | 2.39 | 3.52 | 228,444 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD B | 3.45 | 2.58 | 241,700 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD A | 3.62 | 2.75 | 270,321 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD C | 3.37 | 3.02 | 276,360 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD D | 3.53 | 2.93 | 280,854 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | FIELD E | 3.20 | 3.81 | 331,065 |
| WQ0023310 | Warsaw Sanitation Trailer Wash Facility | WW Irrigation | ZONE 2 | 2.03 | 6.71 | 369,877 |
| WQ0023511 | Woodland Heights Elementary School | WW Irrigation | 1/2 | 1.68 | 4.09 | 186,583 |
| WQ0023511 | Woodland Heights Elementary School | WW Irrigation | 1/1 | 1.84 | 3.93 | 196,358 |
| WQ0023580 | Cove Key Townhomes on Lake Norman | Reclaimed | 1 | 3.08 | 6.33 | 529,411 |
| WQ0023634 | Waterside Villages | WW Irrigation | 1/2 | 0.22 | 30.29 | 180,951 |
| WQ0023634 | Waterside Villages | WW Irrigation | Spray Bed | 1.96 | 30.29 | 1,612,106 |
| WQ0023634 | Waterside Villages | WW Irrigation | Green Area | 6.17 | 30.29 | 5,074,845 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 3 | 1.35 | 0.49 | 17,963 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 2 | 1.09 | 0.87 | 25,750 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 8 | 1.84 | 0.82 | 40,970 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 6 | 0.98 | 1.63 | 43,376 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 9 | 1.63 | 1.04 | 46,032 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 1 | 1.94 | 0.89 | 46,885 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 7 | 1.54 | 1.35 | 56,454 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 5 A | 0.67 | 6.04 | 109,888 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IP 4 | 1.85 | 2.83 | 142,166 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 3 B | 0.63 | 13.96 | 238,817 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 8 B | 0.63 | 13.96 | 238,817 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 1 A | 2.00 | 6.04 | 328,024 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 8 A | 2.21 | 6.04 | 362,466 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 2 A | 2.53 | 6.04 | 414,950 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 16 (PGM 8) | 0.20 | 90.28 | 490,298 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 11B | 1.25 | 14.96 | 507,785 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 14A | 1.39 | 15.00 | 566,167 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 10B | 1.44 | 14.96 | 584,968 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 16B | 1.44 | 14.96 | 584,968 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 16A | 1.45 | 15.00 | 590,606 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 1B | 1.19 | 19.10 | 617,190 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 14 (PGM 5) | 0.49 | 47.00 | 625,363 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 4 A | 4.07 | 6.04 | 667,528 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 9 A | 4.19 | 6.04 | 687,210 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 17A | 1.79 | 15.00 | 729,093 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 3B | 1.42 | 19.10 | 736,479 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 3 A | 4.64 | 6.04 | 761,015 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 7 A | 5.02 | 6.04 | 823,340 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 6 (PGM 16) | 2.85 | 10.69 | 827,296 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 15A | 2.18 | 15.00 | 887,945 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 1A | 3.29 | 10.13 | 904,990 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 7A | 3.40 | 10.13 | 935,248 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 13B | 2.40 | 14.96 | 974,947 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 6 A | 5.40 | 6.80 | 997,105 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 13 (PGM 6) | 3.95 | 9.62 | 1,031,836 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 5B | 2.62 | 14.93 | 1,062,183 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 13A | 3.41 | 12.29 | 1,138,006 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 15B | 3.31 | 15.03 | 1,350,907 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 8A | 4.93 | 10.13 | 1,356,109 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 3A | 5.50 | 10.13 | 1,512,901 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 2A | 5.52 | 10.13 | 1,518,402 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 18A | 3.80 | 15.00 | 1,547,794 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | PRACTICE RANGE B | 7.06 | 8.22 | 1,575,850 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 8 (PGM 7) | 0.35 | 171.96 | 1,634,308 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 12A | 4.08 | 15.00 | 1,661,842 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 5 (PGM 4) | 4.55 | 13.98 | 1,727,257 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 10A | 4.26 | 15.00 | 1,735,159 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 15 (PGM 3) | 1.64 | 39.54 | 1,760,836 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 6A | 7.80 | 9.13 | 1,933,765 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | IBIS 1 B | 5.60 | 13.96 | 2,122,813 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 15 (NORTH) | 15.25 | 5.89 | 2,439,066 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 9A | 8.91 | 10.13 | 2,450,900 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 7 (PGM 17) | 1.74 | 52.49 | 2,480,072 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 2 (PGM 11) | 2.37 | 40.94 | 2,634,721 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 10 (PGM 12) | 1.40 | 71.30 | 2,710,541 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 14 (NORTH) | 51.65 | 1.98 | 2,776,987 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 4B | 5.51 | 19.10 | 2,857,744 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 18B | 7.13 | 14.96 | 2,896,406 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 11A | 7.46 | 15.00 | 3,038,565 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | PRACTICE RANGE A | 8.00 | 14.22 | 3,089,072 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 1 (PGM 14) | 4.99 | 26.66 | 3,612,427 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 17 (NORTH) | 12.49 | 12.35 | 4,188,589 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 18 (NORTH) | 12.34 | 12.68 | 4,248,864 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 26 (NORTH) | 16.91 | 9.26 | 4,251,997 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 17 (PGM 15) | 6.69 | 23.90 | 4,341,726 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 13 (SOUTH) | 15.99 | 10.27 | 4,459,203 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 21 (NORTH) | 28.01 | 6.03 | 4,586,367 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 19 (NORTH) | 25.05 | 6.75 | 4,591,450 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 25 (NORTH) | 7.25 | 23.37 | 4,600,819 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 29 (NORTH) | 10.25 | 16.53 | 4,600,819 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 27 (NORTH) | 8.02 | 21.13 | 4,601,636 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 23 (NORTH) | 22.78 | 7.45 | 4,608,381 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 3 (SOUTH) | 33.79 | 5.32 | 4,881,330 |

li

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 22 (NORTH) | 33.22 | 5.54 | 4,997,442 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 20 (NORTH) | 10.95 | 16.84 | 5,007,196 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 28 (NORTH) | 17.09 | 10.80 | 5,011,921 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 24 (NORTH) | 18.00 | 10.27 | 5,019,741 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 10 (SOUTH) | 25.76 | 7.70 | 5,386,107 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 11 (SOUTH) | 27.80 | 7.22 | 5,450,300 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 4 (SOUTH) | 5.88 | 34.78 | 5,553,225 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 6 (SOUTH) | 10.19 | 22.68 | 6,275,605 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 8 (SOUTH) | 20.24 | 11.45 | 6,292,951 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 9 (SOUTH) | 16.04 | 14.45 | 6,293,766 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 7 (SOUTH) | 12.30 | 18.85 | 6,295,857 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 1 (SOUTH) | 18.80 | 12.34 | 6,299,577 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | DRIP ZONE 2 (SOUTH) | 19.19 | 12.10 | 6,305,198 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 11 (PGM 1) | 14.35 | 22.47 | 8,755,750 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 4 (PGM 9) | 9.63 | 34.79 | 9,097,438 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 9 PGM 13) | 5.27 | 64.60 | 9,244,459 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 3 (PGM 2) | 19.16 | 22.03 | 11,461,683 |
| WQ0023693 | West Brunswick Regional WWTF | High-Rate Infiltration | 12 (PGM 10) | 12.24 | 35.31 | 11,735,930 |
| WQ0023896 | UNC-CH Bingham Facility | WW Irrigation | A | 2.12 | 0.67 | 38,570 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 3-7 | 0.49 | 1.82 | 24,216 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 3-4 | 0.74 | 1.42 | 28,534 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 3-6 | 0.71 | 1.54 | 29,690 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 3-5 | 0.77 | 1.47 | 30,736 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 3-2 | 0.71 | 1.60 | 30,847 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 3-3 | 0.71 | 1.60 | 30,847 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 3-1 | 0.77 | 1.53 | 31,990 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-15 | 1.10 | 13.15 | 392,787 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-10 | 1.10 | 19.89 | 594,109 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-2 | 1.10 | 21.94 | 655,342 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-4 | 1.20 | 22.17 | 722,413 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-9 | 1.20 | 23.36 | 761,189 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-1 | 1.20 | 24.31 | 792,145 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-3 | 1.20 | 24.31 | 792,145 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-6 | 1.20 | 24.53 | 799,314 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-8 | 1.20 | 24.53 | 799,314 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-11 | 1.20 | 25.87 | 842,978 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-14 | 1.28 | 26.39 | 917,250 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-12 | 1.42 | 25.92 | 999,452 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-7 | 1.50 | 24.60 | 1,001,993 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-13 | 1.40 | 27.87 | 1,059,506 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 1-5 | 1.70 | 24.55 | 1,133,284 |
| WQ0023934 | Pikeville Wastewater Treatment Facility | Reclaimed | 2 | 21.50 | 53.84 | 31,432,715 |
| WQ0024003 | Harvey Pt Defense Fac | WW Irrigation | 4 | 1.31 | 19.23 | 684,052 |
| WQ0024003 | Harvey Pt Defense Fac | WW Irrigation | 1 | 1.31 | 39.20 | 1,394,427 |
| WQ0024003 | Harvey Pt Defense Fac | WW Irrigation | 2 | 1.31 | 39.20 | 1,394,427 |
| WQ0024003 | Harvey Pt Defense Fac | WW Irrigation | 3 | 1.31 | 39.20 | 1,394,427 |
| WQ0024053 | CTS Rocky Point Facility | WW Irrigation | 1/1 | 0.44 | 2.31 | 27,600 |
| WQ0024053 | CTS Rocky Point Facility | WW Irrigation | 1/2 | 0.44 | 2.31 | 27,600 |
| WQ0024053 | CTS Rocky Point Facility | WW Irrigation | 1/3 | 0.44 | 2.31 | 27,600 |
| WQ0024223 | Pine Hollow Golf Club | Reclaimed | Old 1 | 18.42 | 2.09 | 1,045,580 |
| WQ0024223 | Pine Hollow Golf Club | Reclaimed | 3 | 10.55 | 5.88 | 1,685,062 |
| WQ0024223 | Pine Hollow Golf Club | Reclaimed | 6 | 8.90 | 8.85 | 2,137,841 |
| WQ0024223 | Pine Hollow Golf Club | Reclaimed | 5 | 15.52 | 8.09 | 3,407,719 |
| WQ0024223 | Pine Hollow Golf Club | Reclaimed | 4 | 16.44 | 10.27 | 4,582,911 |
| WQ0024223 | Pine Hollow Golf Club | Reclaimed | 2 | 14.67 | 12.75 | 5,077,412 |
| WQ0024223 | Pine Hollow Golf Club | Reclaimed | 1 | 97.40 | 2.09 | 5,528,747 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 8A | 0.09 | 0.09 | 220 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 7 | 0.34 | 0.42 | 3,878 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 8B | 0.45 | 0.69 | 8,431 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 8C-1 | 0.47 | 0.70 | 8,934 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 2C | 0.13 | 2.56 | 9,037 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 8C-2 | 0.73 | 0.80 | 15,858 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 3 | 0.23 | 3.40 | 21,235 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 2B-2 | 0.32 | 2.90 | 25,199 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 6A | 0.85 | 2.02 | 46,624 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 2B-1 | 0.53 | 3.27 | 47,061 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 5 | 0.35 | 5.25 | 49,896 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 6B | 1.24 | 2.85 | 95,963 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 4 | 1.28 | 6.27 | 217,929 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 2A | 3.58 | 10.79 | 1,048,921 |
| WQ0024320 | Rockbridge Subdivision | Reclaimed | 1 | 5.14 | 9.62 | 1,342,693 |
| WQ0024461 | White Cross Fire Department | WW Irrigation | 01 | 0.15 | 18.29 | 74,498 |
| WQ0024508 | Carolina Research Center | WW Irrigation | 1 | 16.00 | 1.01 | 438,813 |
| WQ0024577 | Sutton's Rest Home | WW Irrigation | 01 | 4.00 | 0.49 | 53,244 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | Old F | 11.30 | 0.67 | 205,585 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | B | 11.25 | 0.88 | 268,827 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | F | 11.34 | 0.88 | 270,978 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | Old D | 21.40 | 0.50 | 290,551 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | Old E | 21.00 | 0.51 | 290,822 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | E | 20.99 | 0.88 | 501,572 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | Old B | 25.10 | 0.80 | 545,258 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | D | 23.73 | 0.88 | 567,047 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | Old A | 26.30 | 0.88 | 628,459 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | Old C | 27.70 | 0.84 | 631,826 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | C | 33.10 | 0.88 | 790,950 |
| WQ0024694 | Bright's Creek Golf Club | Reclaimed | A | 34.90 | 0.88 | 833,962 |
| WQ0028562 | North Harnett Regional WWTP | WW Irrigation | N. HARNETT Co. WWTP | 7.82 | 16.00 | 3,397,544 |
| WQ0028693 | Mountaintop Golf & Lake Club WWTF | Reclaimed | 02 | 4.35 | 0.88 | 104,195 |
| WQ0028693 | Mountaintop Golf & Lake Club WWTF | Reclaimed | 30 | 5.34 | 0.72 | 104,939 |
| WQ0028693 | Mountaintop Golf & Lake Club WWTF | Reclaimed | 01 | 3.09 | 1.32 | 111,025 |
| WQ0028693 | Mountaintop Golf & Lake Club WWTF | Reclaimed | 29 | 4.24 | 1.09 | 124,978 |
| WQ0028693 | Mountaintop Golf & Lake Club WWTF | Reclaimed | 32 | 4.80 | 11.58 | 1,508,705 |
| WQ0028693 | Mountaintop Golf & Lake Club WWTF | Reclaimed | 31 | 4.74 | 17.36 | 2,234,750 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0028749 | Louisiana-Pacific OSB Facility | WW Irrigation | 1 | 2.50 | 0.89 | 60,418 |
| WQ0028860 | American Soil and Mulch | WW Irrigation | 01 | 0.10 | 8.66 | 23,516 |
| WQ0029168 | Camp Durant WWTF | WW Irrigation | 7 | 1.82 | 4.98 | 246,116 |
| WQ0029168 | Camp Durant WWTF | WW Irrigation | 6 | 1.85 | 4.98 | 250,172 |
| WQ0029168 | Camp Durant WWTF | WW Irrigation | 1 | 1.86 | 4.96 | 250,515 |
| WQ0029168 | Camp Durant WWTF | WW Irrigation | 2 | 1.87 | 4.95 | 251,354 |
| WQ0029168 | Camp Durant WWTF | WW Irrigation | 5 | 1.88 | 4.94 | 252,187 |
| WQ0029168 | Camp Durant WWTF | WW Irrigation | 4 | 1.86 | 5.17 | 261,121 |
| WQ0029168 | Camp Durant WWTF | WW Irrigation | 3 | 1.87 | 5.16 | 262,017 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 12 | 4.94 | 0.38 | 50,974 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 6 | 8.40 | 0.98 | 223,534 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 9 | 4.69 | 2.58 | 328,572 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 7 | 6.47 | 5.61 | 985,611 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 5 | 9.98 | 4.32 | 1,170,719 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 11 | 10.96 | 4.46 | 1,327,345 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 2 | 8.80 | 7.29 | 1,742,002 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 10 | 12.37 | 6.02 | 2,022,109 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 8 | 12.85 | 7.01 | 2,446,017 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 3 | 14.60 | 6.64 | 2,632,445 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 4 | 12.03 | 9.58 | 3,129,461 |
| WQ0029169 | Mount Olive WWTP | Reclaimed | 1 | 11.89 | 10.67 | 3,444,964 |
| WQ0029195 | Bradford Crossing Shopping Center | WW Irrigation | 1 | 0.44 | 0.54 | 6,452 |
| WQ0029195 | Bradford Crossing Shopping Center | WW Irrigation | 4 | 0.44 | 0.54 | 6,452 |
| WQ0029195 | Bradford Crossing Shopping Center | WW Irrigation | 5 | 0.44 | 2.01 | 24,015 |
| WQ0029195 | Bradford Crossing Shopping Center | WW Irrigation | 3 | 0.46 | 12.03 | 150,266 |
| WQ0029195 | Bradford Crossing Shopping Center | WW Irrigation | 2 | 0.45 | 13.50 | 164,962 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | S-1 | 2.50 | 0.84 | 57,024 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | N-1 | 2.65 | 0.83 | 59,726 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | W-5 | 2.40 | 1.92 | 125,127 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | N-2 | 2.40 | 3.86 | 251,557 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | N-3 | 2.40 | 3.86 | 251,557 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | N-4 | 2.40 | 3.86 | 251,557 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | W-2 | 2.50 | 3.78 | 256,608 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | W-3 | 2.50 | 3.78 | 256,608 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | W-4 | 2.50 | 3.78 | 256,608 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | S-4 | 2.40 | 3.98 | 259,378 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | N-5 | 2.70 | 3.86 | 283,002 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | S-3 | 2.75 | 3.98 | 297,204 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | S-2 | 2.80 | 3.98 | 302,607 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | N-6 | 2.90 | 3.98 | 313,415 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | W-1 | 2.65 | 4.59 | 330,291 |
| WQ0029289 | Kinston Regional Water Reclamation Facility | Reclaimed | 1 | 3.32 | 4.55 | 410,193 |
| WQ0029475 | Sterling Farms WWTF | Reclaimed | 1 | 60.00 | 9.76 | 15,901,387 |
| WQ0029601 | Southwest Plantation and Bear Trail Golf Course | Reclaimed | 7 | 1.10 | 0.14 | 4,182 |
| WQ0029601 | Southwest Plantation and Bear Trail Golf Course | Reclaimed | 1 | 5.80 | 0.14 | 22,049 |
| WQ0029601 | Southwest Plantation and Bear Trail Golf Course | Reclaimed | 9 | 17.23 | 0.14 | 65,502 |
| WQ0029601 | Southwest Plantation and Bear Trail Golf Course | Reclaimed | DR | 6.70 | 3.26 | 593,104 |
| WQ0029635 | Sunset Pointe Residential Subdivision | WW Irrigation | 1 | 2.50 | 0.84 | 57,024 |
| WQ0029635 | Sunset Pointe Residential Subdivision | WW Irrigation | 5 | 2.50 | 1.14 | 77,390 |
| WQ0029635 | Sunset Pointe Residential Subdivision | WW Irrigation | 4 | 2.60 | 1.14 | 80,485 |
| WQ0029635 | Sunset Pointe Residential Subdivision | WW Irrigation | 3 | 2.50 | 2.91 | 197,547 |
| WQ0029635 | Sunset Pointe Residential Subdivision | WW Irrigation | 2 | 2.50 | 2.94 | 199,584 |
| WQ0029894 | Camden County WWTP | Reclaimed | 9 | 0.82 | 9.83 | 218,880 |
| WQ0029894 | Camden County WWTP | Reclaimed | 2 | 2.52 | 9.83 | 671,587 |
| WQ0029894 | Camden County WWTP | Reclaimed | 1 | 3.11 | 9.83 | 828,807 |
| WQ0029894 | Camden County WWTP | Reclaimed | 4 | 3.89 | 9.83 | 1,038,345 |
| WQ0029894 | Camden County WWTP | Reclaimed | 3 | 6.58 | 9.83 | 1,756,377 |
| WQ0029894 | Camden County WWTP | Reclaimed | 5 | 7.70 | 9.83 | 2,056,403 |
| WQ0029894 | Camden County WWTP | Reclaimed | 8 | 8.03 | 9.83 | 2,143,955 |
| WQ0029894 | Camden County WWTP | Reclaimed | 6 | 8.42 | 9.83 | 2,246,988 |
| WQ0029894 | Camden County WWTP | Reclaimed | 7 | 9.03 | 9.83 | 2,410,347 |
| WQ0029894 | Camden County WWTP | Reclaimed | Old 1 | 49.30 | 9.83 | 13,159,483 |

| Permit # | Facility Name | Permit Type | Field / Zone ID | Acres | Annual Rate (in.) | Volume (gal.) |
|---|---|---|---|---|---|---|
| WQ0030190 | Laurinburg Truckwash | WW Irrigation | 1 | 4.69 | 23.28 | 2,964,792 |
| WQ0030190 | Laurinburg Truckwash | WW Irrigation | 2 | 4.78 | 27.97 | 3,630,436 |
| WQ0030245 | Rosman WWTP | Reclaimed | 1 | 5.81 | 8.39 | 1,323,660 |
| WQ0030245 | Rosman WWTP | WW Irrigation | 1 | 5.81 | 8.39 | 1,323,660 |
| WQ0030304 | Dogwood Veterinary Hospital | WW Irrigation | 1 | 0.35 | 7.25 | 68,904 |
| WQ0031030 | Currituck County BOE – North Elementary | WW Irrigation - Other | 1-B1 | 2.01 | 6.33 | 345,492 |
| WQ0031070 | Cape Point RV Park WWTF | WW Irrigation | 1 | 0.23 | 46.81 | 292,339 |
| WQ0031717 | Talley Pointe | WW Irrigation | 1 | 0.81 | 1.05 | 23,095 |
| WQ0032016 | Rose Hill Plantation | WW Irrigation | 5 | 1.24 | 0.38 | 12,795 |
| WQ0032016 | Rose Hill Plantation | WW Irrigation | 2 | 0.92 | 0.62 | 15,489 |
| WQ0032016 | Rose Hill Plantation | WW Irrigation | 3 | 1.13 | 0.72 | 22,093 |
| WQ0032016 | Rose Hill Plantation | WW Irrigation | 4 | 1.53 | 0.67 | 27,836 |
| WQ0032016 | Rose Hill Plantation | WW Irrigation | 1 | 1.20 | 0.95 | 30,956 |
| WQ0032289 | Utley Creek WWTP Reclaimed Water System | Reclaimed | 1 | 2.39 | 3.78 | 245,538 |
| WQ0032289 | Utley Creek WWTP Reclaimed Water System | Reclaimed | 2 | 69.80 | 3.61 | 6,839,060 |
| WQ0032930 | New Topsail School Complex WWTF | WW Irrigation | 1 | 1.27 | 20.89 | 720,480 |
| WQ0032930 | New Topsail School Complex WWTF | WW Irrigation | 2 | 1.26 | 21.07 | 720,932 |
| WQ0032930 | New Topsail School Complex WWTF | WW Irrigation | 3 | 1.26 | 21.07 | 720,932 |
| WQ0033374 | River Ridge Golf Course | Reclaimed | 1 | 110.00 | 0.20 | 595,602 |
| WQ0033677 | Morganton Hatchery | WW Irrigation | 04 | 0.96 | 16.70 | 435,364 |
| WQ0033677 | Morganton Hatchery | WW Irrigation | 01 | 1.00 | 19.59 | 531,844 |
| WQ0033677 | Morganton Hatchery | WW Irrigation | 03 | 1.12 | 19.26 | 585,872 |
| WQ0033677 | Morganton Hatchery | WW Irrigation | 02 | 1.13 | 20.31 | 623,230 |
| WQ0033804 | Deerborne Cottages | WW Irrigation | 7 | 0.38 | 0.02 | 206 |
| WQ0033804 | Deerborne Cottages | WW Irrigation | 6 | 0.42 | 0.04 | 399 |
| WQ0034715 | The Club at 12 Oaks | Reclaimed | GC | 69.80 | 0.56 | 1,068,609 |

## Thornburg, Nathaniel

**From:** Will Hendrick <whendrick@selcnc.org>
**Sent:** Friday, October 02, 2015 4:04 PM
**To:** Thornburg, Nathaniel
**Subject:** SELC Exhibits H-Q
**Attachments:** Exhibits H - Q combined UPDATED.PDF

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

**Categories:** Important

Exhibits H-Q are attached. This is the last of the exhibits referenced in our comment letter.

**Will Hendrick**
Associate Attorney
Southern Environmental Law Center
601 W. Rosemary Street, Suite 220
Chapel Hill, NC 27516-2356
(919) 967-1450
whendrick@selcnc.org

# EXHIBIT H

## Sipe, Randy

**From:** Sipe, Randy
**Sent:** Monday, December 21, 2009 1:37 PM
**To:** Thornburg, Nathaniel
**Subject:** RE: Sanderson Farms Add. Info. review

We talked it over here and don't think that VOC analyses of GW would be necessary in this case.

Randy Sipe
Division of Water Quality
Aquifer Protection Section
943 Washington Square Mall
Washington, NC 27889

randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716



**From:** Thornburg, Nathaniel
**Sent:** Monday, December 21, 2009 12:56 PM
**To:** Sipe, Randy; Hayes, Richard
**Subject:** RE: Sanderson Farms Add. Info. review

Thanks Randy!

In you GW opinion, do VOCs need to be monitored?

NT

**********

Nathaniel D. Thornburg – Environmental Engineer II
Aquifer Protection Section – Land Application Unit
1636 Mail Service Center
Raleigh, NC 27699-1636
919-715-6160
919-715-6048 FAX
http://h2o.enr.state.nc.us/lau/main.html

Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Sipe, Randy
**Sent:** Monday, December 21, 2009 12:52 PM
**To:** Thornburg, Nathaniel; Hayes, Richard
**Subject:** Sanderson Farms Add. Info. review

I've reviewed the add. info. package and have no further questions.

Randy Sipe
Division of Water Quality
Aquifer Protection Section
943 Washington Square Mall
Washington, NC 27889

randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716

**Sipe, Randy**

**From:** Sipe, Randy
**Sent:** Monday, December 21, 2009 2:33 PM
**To:** Thornburg, Nathaniel; Hayes, Richard
**Subject:** RE: Sanderson Farms Add. Info. review

I see them on the Site Map as black squares. I don't have any issues with the locations. I have a copy of the map with the well loc. circled. I can scan it and send it to you tomorrow, but I have to leave the office in a few minutes today to take delivery of some furniture at home.

Randy Sipe
Division of Water Quality
Aquifer Protection Section
943 Washington Square Mall
Washington, NC 27889

randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716



**From:** Thornburg, Nathaniel
**Sent:** Monday, December 21, 2009 2:06 PM
**To:** Hayes, Richard; Sipe, Randy
**Subject:** RE: Sanderson Farms Add. Info. review

I found the map in the December 2nd AI, but could one of you please verify there are 6 MWs proposed on the RB?

Thank you!

**********

Nathaniel D. Thornburg – Environmental Engineer II
Aquifer Protection Section – Land Application Unit
1636 Mail Service Center
Raleigh, NC 27699-1636
919-715-6160
919-715-6048 FAX
http://h2o.enr.state.nc.us/lau/main.html

Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Hayes, Richard
**Sent:** Monday, December 21, 2009 1:37 PM
**To:** Thornburg, Nathaniel; Sipe, Randy
**Subject:** RE: Sanderson Farms Add. Info. review

After review of the additional information, I have no further questions.

Rich

**Please note my email address has changed to: richard.d.hayes@ncdenr.gov**

**Rich Hayes, Soil Scientist - L.S.S.**
**NCDENR - Division of Water Quality, Aquifer Protection Section**
**NCDENR Raleigh Regional Office**
**1628 Mail Service Center, Raleigh, NC 27699-1699**
**Voice: 919-791-4241 -- Fax: 919.571.4718**



**From:** Thornburg, Nathaniel
**Sent:** Monday, December 21, 2009 12:56 PM
**To:** Sipe, Randy; Hayes, Richard
**Subject:** RE: Sanderson Farms Add. Info. review

Thanks Randy!

In you GW opinion, do VOCs need to be monitored?

NT

**********

Nathaniel D. Thornburg – Environmental Engineer II
Aquifer Protection Section – Land Application Unit
1636 Mail Service Center
Raleigh, NC 27699-1636
919-715-6160
919-715-6048 FAX
http://h2o.enr.state.nc.us/lau/main.html

Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Sipe, Randy
**Sent:** Monday, December 21, 2009 12:52 PM
**To:** Thornburg, Nathaniel; Hayes, Richard
**Subject:** Sanderson Farms Add. Info. review

I've reviewed the add. info. package and have no further questions.

Randy Sipe
Division of Water Quality
Aquifer Protection Section
943 Washington Square Mall
Washington, NC 27889

randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716

## Sipe, Randy

**From:** Sipe, Randy
**Sent:** Tuesday, December 22, 2009 8:53 AM
**To:** Thornburg, Nathaniel
**Cc:** May, David
**Subject:** RE: Sanderson Farms Add. Info. review

I would think it could be concurrent with the GW sampling.

Randy Sipe
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Aquifer Protection Section
943 Washington Square Mall
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randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716



**From:** Thornburg, Nathaniel
**Sent:** Tuesday, December 22, 2009 8:52 AM
**To:** Sipe, Randy
**Cc:** May, David
**Subject:** RE: Sanderson Farms Add. Info. review

Randy,

What frequency of sampling is WaRO interested in?

Nathaniel

**********

Nathaniel D. Thornburg – Environmental Engineer II
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Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Sipe, Randy
**Sent:** Tuesday, December 22, 2009 8:49 AM
**To:** Thornburg, Nathaniel
**Cc:** May, David
**Subject:** RE: Sanderson Farms Add. Info. review

A suggested location is attached. Because the intermittent streams appear to head on the site near the spray fields we did not plan on any upgradient sampling locations. A parameter list could include TN, TN, fecal coliform, Ammonia, and Nitrate. David is out until next Mon. but could possibly have some more suggesttions then.

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943 Washington Square Mall
Washington, NC 27889

randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716



**From:** Thornburg, Nathaniel
**Sent:** Tuesday, December 22, 2009 8:20 AM
**To:** Sipe, Randy; Hayes, Richard
**Cc:** May, David
**Subject:** RE: Sanderson Farms Add. Info. review

Randy,

What parameters are you looking for, and where is the proposed station? Also, would an upgradient station need to be located in order to determine surface water quality changes?

Please also note I added Calcium, Magnesium, Sodium and SAR to PPI 001 on a monthly basis.

NT

**********

Nathaniel D. Thornburg – Environmental Engineer II
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Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Sipe, Randy
**Sent:** Tuesday, December 22, 2009 8:17 AM
**To:** Thornburg, Nathaniel; Hayes, Richard
**Cc:** May, David
**Subject:** RE: Sanderson Farms Add. Info. review

David has also suggested that we have a SW mon. station located near where the intermittent streams exist the site to the east of fields 1 and 5.

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Aquifer Protection Section
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randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716



**From:** Thornburg, Nathaniel
**Sent:** Monday, December 21, 2009 2:36 PM
**To:** Sipe, Randy; Hayes, Richard
**Subject:** RE: Sanderson Farms Add. Info. review

I found 6 around the irrigation fields and am adding one south of the lagoon complex on the RB.

No need to scan and send me one. I should have the draft permit out in the next hour or so.

I'm also adding a PAN limit to Attachment B based on the most restrictive soil in each zone, since there will be no effluent limits (industrial).

NT

**********

Nathaniel D. Thornburg – Environmental Engineer II
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919-715-6048 FAX
http://h2o.enr.state.nc.us/lau/main.html

Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Sipe, Randy
**Sent:** Monday, December 21, 2009 2:33 PM
**To:** Thornburg, Nathaniel; Hayes, Richard
**Subject:** RE: Sanderson Farms Add. Info. review

I see them on the Site Map as black squares. I don't have any issues with the locations. I have a copy of the map with the well loc. circled. I can scan it and send it to you tomorrow, but I have to leave the office in a few minutes today to take delivery of some furniture at home.

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randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716



**From:** Thornburg, Nathaniel
**Sent:** Monday, December 21, 2009 2:06 PM
**To:** Hayes, Richard; Sipe, Randy
**Subject:** RE: Sanderson Farms Add. Info. review

I found the map in the December 2nd AI, but could one of you please verify there are 6 MWs proposed on the RB?

Thank you!

**********

Nathaniel D. Thornburg – Environmental Engineer II
Aquifer Protection Section – Land Application Unit
1636 Mail Service Center
Raleigh, NC 27699-1636
919-715-6160
919-715-6048 FAX
http://h2o.enr.state.nc.us/lau/main.html

Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Hayes, Richard
**Sent:** Monday, December 21, 2009 1:37 PM
**To:** Thornburg, Nathaniel; Sipe, Randy
**Subject:** RE: Sanderson Farms Add. Info. review

After review of the additional information, I have no further questions.

Rich

**Please note my email address has changed to:** richard.d.hayes@ncdenr.gov

**Rich Hayes, Soil Scientist - L.S.S.**
**NCDENR - Division of Water Quality, Aquifer Protection Section**
**NCDENR Raleigh Regional Office**
**1628 Mail Service Center, Raleigh, NC 27699-1699**
**Voice: 919-791-4241 -- Fax: 919.571.4718**



**From:** Thornburg, Nathaniel
**Sent:** Monday, December 21, 2009 12:56 PM

**To:** Sipe, Randy; Hayes, Richard
**Subject:** RE: Sanderson Farms Add. Info. review

Thanks Randy!

In you GW opinion, do VOCs need to be monitored?

NT

**********
Nathaniel D. Thornburg – Environmental Engineer II
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**From:** Sipe, Randy
**Sent:** Monday, December 21, 2009 12:52 PM
**To:** Thornburg, Nathaniel; Hayes, Richard
**Subject:** Sanderson Farms Add. Info. review

I've reviewed the add. info. package and have no further questions.

Randy Sipe
Division of Water Quality
Aquifer Protection Section
943 Washington Square Mall
Washington, NC 27889

randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716

## Sipe, Randy

**From:** Sipe, Randy
**Sent:** Tuesday, December 22, 2009 8:58 AM
**To:** Thornburg, Nathaniel
**Subject:** RE: Sanderson Farms Add. Info. review

Sorry, I meant TN and TP.

Randy Sipe
Division of Water Quality
Aquifer Protection Section
943 Washington Square Mall
Washington, NC 27889

randy.sipe@ncdenr.gov

Phone:252-948-3849
Fax:252-975-3716



**From:** Thornburg, Nathaniel
**Sent:** Tuesday, December 22, 2009 8:57 AM
**To:** Sipe, Randy
**Subject:** RE: Sanderson Farms Add. Info. review

Randy,

You have TN twice in the parameter list. Should there be a different parameter?

**********

Nathaniel D. Thornburg – Environmental Engineer II
Aquifer Protection Section – Land Application Unit
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Raleigh, NC 27699-1636
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Please note: my e-mail address has changed to nathaniel.thornburg@ncdenr.gov



**From:** Sipe, Randy
**Sent:** Tuesday, December 22, 2009 8:49 AM
**To:** Thornburg, Nathaniel
**Cc:** May, David
**Subject:** RE: Sanderson Farms Add. Info. review

A suggested location is attached. Because the intermittent streams appear to head on the site near the spray fields we did not plan on any upgradient sampling locations. A parameter list could include TN, TN, fecal coliform, Ammonia, and Nitrate. David is out until next Mon. but could possibly have some more suggesttions then.

# EXHIBIT I

# Evaluation of Sanderson Farms Wastewater Irrigation System Permit Application

Hailin Zhang

Regents Professor and Nutrient Management Specialist
Department of Plant and Soil Sciences
Oklahoma State University
Hailin.zhang@okstate.edu
405-744-9566
405-747-7786

Prepared for:
Waterkeeper Alliance

Sept. 21, 2015

This evaluation was conducted by Hailin Zhang, Professor and Nutrient Management Extension Specialist at the Department of Plant and Soil Sciences, Division of Agricultural Sciences and Natural Resources, Oklahoma State University (OSU). Dr. Zhang is also the Director of Soil, Water and Forage Analytical Laboratory at OSU.

Dr. Zhang's qualifications for undertaking this assignment include extensive research and extension experience in nutrient management for crop production and for environmental protection. For the last 25 years, Dr. Zhang has conducted numerous applied research projects to understand nutrient dynamics and to develop better practices for nutrient management. He has authored or coauthored over 130 referred journal articles and over 100 extension publications, in addition to over 500 extension presentations. Curriculum vitae are available upon request.

I, Hailin Zhang, after review of the draft wastewater permit, permit application materials, and other documents and resources related to the proposed Sanderson Farms chicken processing plant in St. Pauls, Robeson County, North Carolina, have reached the following conclusions:

1. **The amount of designed irrigation quantity is high.**

   The annual precipitation in the area is about 48 inches (the 80$^{th}$ percentile annual precipitation is about 54 inches), and the potential evapotranspiration (ET) is only 34.5 inches/year. This indicates that the input of water is greater than the loss of water, and some runoff or recharge of groundwater is happening under the natural weather conditions even without additional irrigation. The designed annual hydraulic loading (or amount of irrigation) for the land chosen to receive the treated wastewater is 54 inches. A total of 108 inches water (54" precipitation and 54" irrigation) will be added to the land with 34.5 inch lost through evapotranspiration. The net water excess is 73.5 inches per year. Therefore, more runoff or groundwater recharge will take place with the designed quantity of irrigation. Because the soils selected for irrigating the wastewater are well drained or excessively well drained (Lakeland, Norfolk and Wagram soils), it is more likely that the water will enter into groundwater and potentially raise groundwater table or discharge to adjacent drainage systems by lateral flow. The actual impact to water quality depends on the concentration of nutrients (primarily nitrogen and phosphorus) and salts in the percolating or discharged water.

2. **The amount of phosphorus added to the receiving soil is very high.**

   At the planed irrigation rate of 54" treated wastewater per year, it will add about 184 lbs. of total nitrogen (TN) and 245 lbs. of total phosphorus (TP) per acre. The TP equals to 561 lbs. of $P_2O_5$ ($P_2O_5$ is the formula commonly used for fertilizers or soil amendments). This amount of phosphorus is equivalent to about 10 tons poultry litter per acre per year. At this rate of P

application, it will increase soil test P (Mehlich 3 extraction) by about 20 mg/kg per year in the surface soil (Delaune et al., 2004; Zhang et al., 2005). It is well documented that the dissolved P in runoff water increases as the soil test P increases (Davis et al., 2005; Kleinman et al., 2004; Zhang et al., 2005).

3. **The buffer areas are not clearly specified.**

The Agronomy Evaluation (4.3) states: "buffer areas will be maintained as currently managed." The width and management of the buffer area need to be clearly stated since the buffer is critical in minimizing nutrient and pathogen losses from the irrigated fields to nearby wetlands and water systems.

4. **The phosphorus assimilation by the soil is over-estimated.**

The phosphorus fixation capacities of the soils were calculated from laboratory P adsorption analyses (P adsorption maximum) and P removals by the intended vegetation growth and harvesting (Section 2.5, Agronomist Evaluation).

First, the P adsorption maxima were determined using a series solution with P concentrations ranging from 0 to 320 mg/L. The concentrations used were much higher than that of the actual irrigation wastewater, which is targeted to be 20 mg/L. The P adsorption will not reach the maximum determined from higher concentrations if the actual irrigation water has lower P concentration. In addition, the calculation of total P assimilation assumed a uniform P distribution in the top 6 foot of soils. Experimental evidence (Saldat et al., 2007; Szogi et al., 2010) shows that P distribution is not uniform in soil profiles. The P concentration is generally much higher in the surface soil than in the lower part of the soil even after many years of manure or fertilizer applications.

Second, the P removal amount by plants from NCSU RYE estimation (http://yields.soil.ncsu.edu/index.php#county) is expressed in lbs. $P_2O_5$ per

acre, but the Agronomist Evaluation mistakenly used it as lbs. P per acre. It over estimated plant P removal by 2.29 times.

5. **The plant available nitrogen from the wastewater is under estimated.**

The plant available nitrogen (PAN) was calculated based on the total amount of N in the wastewater, and the mineralization rate of organic N and volatilization rate of ammonia. A 20% mineralization of organic nitrogen was used to derive the PAN. This mineralization rate is lower than that used for determining plant available N from animal wastes in most states. The EPA Process Design Manual for Land Treatment of Municipal Wastewater Effluents (EPA/625/R-06/016) recommends 30%, 10% and 5% mineralization rate of anaerobically digested wastewater for the first, second and third year. Therefore, the mineralization rate should be 45% if the wastewater is used in consecutive years.

6. **Table 1 of the Agronomist Evaluation contains a mistake.**

Table 1 of the Agronomist Evaluation shows the area of planned vegetation, but the second and third columns are mislabeled. Loblolly pine forest should be 109 acres, not 240 acres as shown in the table, according to other documentation (Soil Scientist Evaluation, and Operation and Maintenance Plan).

7. **Groundwater and surface water monitoring is important.**

The Operation and Maintenance Plan (Volume I) states "A proposed ground water and surface water monitoring network has been submitted for approval," but it could not be found in the package. There does need to be a comprehensive water monitoring system including an adequate number of monitoring wells located downstream of each zone. There also need to be monitoring wells near the fields with less than 60" seasonal high water tables. It seems 2 to 3 monitoring wells are needed for each cluster of irrigated fields

(E1-2; E3-5; W1-4; W5-6; S1-4; S5; and S6). If there is any runoff or lateral flow from the irrigated fields, samples should be collected for chemical and biological analyses.

**References:**

1. Davis, R., H. Zhang, J.L. Schroder, J.J. Wang, and M. E. Payton. 2005. Soil characteristics and phosphorus level effects on phosphorus loss in runoff. J. Environ. Qual. 34:1640-1650.
2. DeLaune, P.B., P.A. Moore, Jr., D.K. Carman, A.N. Sharpley, B.E. Haggard, and T.C. Daniel. 2004. Development of a phosphorus index for pastures fertilized with poultry litter—Factors affecting phosphorus runoff. J. Environ. Qual. 33:2183–2191.
3. Kleinman, P.J.A., A.N. Sharpley, T.L. Veith, R.O. Maguire, and P.A. Vadas. 2004. Evaluation of phosphorus transport in surface runoff from packed boxes. J. Environ. Qual. 33:1413–1423.
4. Soldat, D.J., and A.M. Petrovic. 2007. Soil phosphorus levels and stratification as affected by fertilizer and compost applications. Online. Applied Turfgrass Science doi:10.1094/ATS- 2007-0815-01-RS.
5. Szogi, A., P. Bauer, and M. Vanotti. 2010. Distribution of phosphorus in an Ultisol fertilized with recovered manure phosphates. Proceedings of the World Congress of Soil Science, Brisbane, Australia.
6. Zhang, H., J.L. Schroder, R. Davis, M. E. Payton, J.J. Wang, W.E. Thomason, Y. Tang, and W.R. Raun. 2005. Phosphorous loss in runoff from long-term continuous wheat fertility trials. Soil Sci. Soc. Am. J. 70:163-171.

# EXHIBIT J

North Carolina Department of Environment and Natural Resources
Division of Water Quality
Coleen H. Sullins
Director

Beverly Eaves Perdue
Governor

Dee Freeman
Secretary

December 23, 2009

BOB BILLINGSLEY – DIRECTOR OF DEVELOPMENT
SANDERSON FARMS, INC. (PROCESSING DIVISION)
POST OFFICE BOX 988
LAUREL, MISSISSIPPI 39941-4109

Subject: Permit No. WQ0034380
Sanderson Farms WWTF
Wastewater Irrigation System
Lenoir County

Dear Mr. Billingsley:

In accordance with your permit application request received October 28, 2009, and subsequent additional information received December 2, 2009 and December 17, 2009, we are forwarding herewith Permit No. WQ0034380, dated December 23, 2009, to Sanderson Farms, Inc. (Processing Division) for the construction and operation of the subject wastewater treatment and wastewater irrigation facilities.

This permit shall be effective from the date of issuance until December 31, 2015, and shall be subject to the conditions and limitations as specified therein. Please pay particular attention to the monitoring requirements listed in Attachments A, B and C. Failure to establish an adequate system for collecting and maintaining the required operational information shall result in future compliance problems.

**Please note the following conditions are specific to this permit and require your attention:**

Condition I.1. – This condition requires the Permittee to perform an updated soil scientist evaluation on all irrigation areas containing rehabilitated soils that previously contained old farms roads and structures prior to operation of the subject facility.

Condition I.2. – This condition requires the Permittee to properly abandon all non-compliance monitoring wells prior to operation of the subject facility.

If any parts, requirements or limitations contained in this permit are unacceptable, the Permittee has the right to request an adjudicatory hearing upon written request within 30 days following receipt of this permit. This request shall be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings at 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made, this permit shall be final and binding.



AQUIFER PROTECTION SECTION
1636 Mail Service Center, Raleigh, North Carolina 27699-1636
Location: 2728 Capital Boulevard, Raleigh, North Carolina 27604
Phone: 919-733-3221 \ FAX 1: 919-715-0588; FAX 2: 919-715-6048 \ Customer Service: 1-877-623-6748
Internet: www.ncwaterquality.org

One set of approved plans and specifications is being forwarded to you. If you need additional information concerning this matter, please contact Nathaniel Thornburg at (919) 715-6160 or nathaniel.thornburg@ncdenr.gov.

Sincerely,

for Coleen H. Sullins

cc: Lenoir County Health Department
Washington Regional Office, Aquifer Protection Section
Jeffrey A. Graves, PE – Charles N. Clark Associates, LTD
Technical Assistance and Certification Unit
Permit File WQ0034380
Notebook File WQ0034380

**NORTH CAROLINA**

**ENVIRONMENTAL MANAGEMENT COMMISSION**

**DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**

**RALEIGH**

**WASTEWATER IRRIGATION SYSTEM PERMIT**

---

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules and Regulations

PERMISSION IS HEREBY GRANTED TO

# Sanderson Farms, Inc. (Processing Division)

Lenoir County

FOR THE

construction and operation of a 1,400,000 gallon per day (GPD) wastewater treatment and wastewater irrigation facility consisting of:

a processing plant pump station with two 2,000 gallon per minute (GPM) pumps receiving effluent from the processing plant via a deemed permitted pretreatment process offal pit containing a rotary screen and a secondary fine screen, and a stormwater pump station with two 220 GPM submersible pumps (note treatment plant is sized to treat the stormwater source that contains a mixture of contained stormwater and wastewater runoff); approximately 4,636 linear feet of 14-inch force main; a flow splitter box; a 17.8 million gallon (MG) clay lined covered anaerobic lagoon providing anaerobic treatment and 25% average daily flow equalization with waste gas blowers and burner; an anaerobic lagoon pump station with two 1,180 GPM pumps and a flow meter; a 523,000 gallon anoxic basin with a 15 horsepower (hp) mixer; a 2,969,000 gallon aeration basin served by nine 728 cubic feet per minute (CFM) blowers and with a 2,000 cubic foot ($ft^3$) lime silo, a 1,915 GPM recycled activated sludge (RAS) screw pump and flow meter, a 5,020 GPM recycle mixed liquor (RML) screw pump and a third swing/spare screw pump capable of serving as a RAS or RML pump; a 38,100 gallon de-aeration basin with a 3 hp mixer; a 644,000 gallon clarifier with a flow meter and a waste activated sludge (WAS) line flow meter; a 5.1 MG clay lined waste sludge lagoon; a parshall flume; an ultraviolet (UV) disinfection system consisting of two banks in series and a total of 64 lamps; a 10.2 MG clay lined holding lagoon #1 interconnected with a 8.2 MG clay lined holding lagoon #2; an irrigation pump station with three 2,079 GPM vertical turbine pumps and a flow meter; approximately 232.8 acres of spray irrigation fields consisting of 8 zones and 14 subfields; and all associated piping, valves, controls and appurtenances

to serve the Sanderson Farms WWTF, with no discharge of wastes to surface waters, pursuant to the application received October 28, 2009, and subsequent additional information received by the Division of Water Quality, and in conformity with the project plans, specifications, and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

This permit shall be effective from the date of issuance until December 31, 2015, and shall be subject to the following specified conditions and limitations:

DEC 29 2

## I. SCHEDULES

1. Upon completion of construction and prior to irrigation, a soil scientist evaluation shall be completed for all areas where old farm roads and structures lie within the wetted area of irrigation fields. The report shall certify that the renovated former road and structure areas are capable of accepting the designed loading rate. This report shall specifically address, but not be limited to, soil features such as soil compaction and saturated hydraulic conductivity of the least permeable layer, as well as any other properties that might impact the soil's ability to accept irrigation water. The requested information must be received and acknowledged in writing by the Aquifer Protection Section, 943 Washington Square Mall, Washington, NC 27889, prior to any irrigation of wastewater.

2. Prior to operation, all onsite domestic wells, aquifer test wells and monitoring wells not used for compliance monitoring shall be permanently abandoned. The wells shall be abandoned according to the North Carolina Well Construction Standards (15A NCAC 02C .0113) and local county rules. The Engineering Certification (attached) and Washington Regional Office in-place inspection shall serve as notification to the Division that the aforementioned wells have been permanently abandoned.

3. In accordance with 15A NCAC 02T .0116, upon completion of construction and prior to operation of this permitted facility, a certification (attached) shall be submitted from a licensed North Carolina Professional Engineer certifying that the permitted facility has been installed in accordance with this permit, Division approved plans and specifications, and other supporting documentation, including the location of all monitoring wells as applicable. If this project is to be completed in phases and partially certified, the Permittee shall retain the responsibility to track further construction approved under the same permit, and shall provide a final certificate of completion once the entire project has been completed. Mail the Certification to the Division of Water Quality, Aquifer Protection Section, 1636 Mail Service Center, Raleigh, NC 27699-1636.

4. The Washington Regional Office, telephone number (252) 946-6481, shall be notified at least 48 hours in advance (excluding weekends and holidays) of operation of the installed facilities such that an in-place inspection can be made. Notification to the Aquifer Protection Section's regional supervisor shall be made from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays.

5. The Washington Regional Office, telephone number (252) 946-6481, shall approve monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7 prior to installation, and the monitoring wells shall be installed prior to beginning waste disposal operations. The regional office shall be notified at least 48 hours prior to the construction of any monitoring well, and such notification to the Aquifer Protection Section's regional supervisor shall be made from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays. The monitoring wells shall be constructed such that the water level in the well is never above or below the screened (open) portion of the well at any time during the year, and in accordance with 15A NCAC 02C .0108. The general location and name for each monitoring well is marked on Figure 1.

6. Within 60 days of completion of the monitoring wells, the Permittee shall submit two original copies of a site map with a scale no greater than 1-inch equals 100 feet; however, special provisions may be granted upon prior approval for large properties. At a minimum, the map shall include the following information:

   a. The location and identity of each monitoring well.
   b. The location of major components of the waste disposal system.
   c. The location of property boundaries within 500 feet of the disposal areas.
   d. The latitude and longitude of the established horizontal control monument.
   e. The elevation of the top of the well casing (i.e., measuring point) relative to a common datum.
   f. The depth of water below the measuring point at the time the measuring point is established.
   g. The location of compliance and review boundaries.
   h. The date the map is prepared and/or revised.

Control monuments shall be installed in such a manner and made of such materials that the monument will not be destroyed due to activities taking place on the property. The map and any supporting documentation shall be sent to the Division of Water Quality, Aquifer Protection Section, 1636 Mail Service Center, Raleigh, NC 27699-1636.

7. A gauge to monitor waste levels in the 10.2 million gallon (MG) holding lagoon #1, 8.2 MG holding lagoon #2, 17.8 MG anaerobic lagoon and 5.1 MG waste sludge lagoon shall be installed within 60 days prior to operation. Caution shall be taken not to damage the integrity of the liner (if present) when installing the gauge.

8. No later than six months prior to the expiration of this permit, the Permittee shall request renewal of this permit on official Division forms. Upon receipt of the request, the Division will review the adequacy of the facilities described therein, and if warranted, will renew the permit for such period of time and under such conditions and limitations as it may deem appropriate. Please note Rule 15A NCAC 02T .0105(d) requires an updated site map to be submitted with the permit renewal application.

## II. PERFORMANCE STANDARDS

1. The subject non-discharge facilities shall be effectively maintained and operated at all times so there is no discharge to surface waters, nor any contravention of groundwater or surface water standards. In the event the facilities fail to perform satisfactorily, including the creation of nuisance conditions due to improper operation and maintenance, or failure of the irrigation areas to adequately assimilate the effluent, the Permittee shall take immediate corrective actions including Division required actions, such as the construction of additional or replacement wastewater treatment or disposal facilities.

2. This permit shall not relieve the Permittee of their responsibility for damages to groundwater or surface water resulting from the operation of this facility.

3. All wells constructed for purposes of groundwater monitoring shall be constructed in accordance with 15A NCAC 02C .0108 (Standards of Construction for Wells Other than Water Supply), and any other jurisdictional laws and regulations pertaining to well construction.

4. Effluent limitations shall not exceed those specified in Attachment A.

5. Application rates, whether hydraulic, nutrient or other pollutant, shall not exceed those specified in Attachment B.

6. The compliance boundary for the disposal system shall be specified in accordance with 15A NCAC 02L .0107(b). This disposal system was individually permitted on or after December 30, 1983; therefore, the compliance boundary is established at either 250 feet from the effluent disposal area, or 50 feet within the property boundary, whichever is closest to the effluent disposal area. An exceedance of groundwater standards at or beyond the compliance boundary is subject to remediation action according to 15A NCAC 02L .0106(d)(2) as well as enforcement actions in accordance with North Carolina General Statute 143-215.6A through 143-215.6C.

7. The Permittee shall apply for a permit modification to establish a new compliance boundary prior to any sale or transfer of property affecting a compliance boundary.

8. In accordance with 15A NCAC 02L .0107(d), no wells, excluding Division approved monitoring wells, shall be constructed within the compliance boundary except as provided for in 15A NCAC 02L .0107(g).

9. Except as provided for in 15A NCAC 02L .0107(g), the Permittee shall ensure any landowner who is not the Permittee and owns land within the compliance boundary shall execute and file with the Lenoir County Register of Deeds an easement running with the land containing the following items:
   a. A notice of the permit and number or other description as allowed in 15A NCAC 02L .0107(f)(1);
   b. Prohibits construction and operation of water supply wells within the compliance boundary; and
   c. Reserves the right of the Permittee or the State to enter the property within the compliance boundary for purposes related to the permit.

   The Director may terminate the easement when its purpose has been fulfilled or is no longer needed.

10. The facilities permitted herein shall be constructed according to the following setbacks:
   a. The setbacks for irrigation sites permitted after September 1, 2006 shall be as follows (all distances in feet):

| | |
|---|---|
| i. Any habitable residence or place of public assembly under separate ownership: | 400 |
| ii. Any habitable residence or place of public assembly owned by the Permittee: | 200 |
| iii. Any private or public water supply source: | 100 |
| iv. Surface waters: | 100 |
| v. Groundwater lowering ditches: | 100 |
| vi. Surface water diversions: | 25 |
| vii. Any well with exception of monitoring wells: | 100 |
| viii. Any property line: | 150 |
| ix. Top of slope of embankments or cuts of two feet or more in vertical height: | 15 |
| x. Any water line from a disposal system: | 10 |
| xi. Subsurface groundwater lowering drainage systems: | 100 |
| xii. Any swimming pool: | 100 |
| xiii. Public right of way: | 50 |
| xiv. Nitrification field: | 20 |
| xv. Any building foundation or basement: | 15 |

   b. The setbacks for storage and treatment units permitted after September 1, 2006 shall be as follows (all distances in feet):

| | |
|---|---|
| i. Any habitable residence or place of public assembly under separate ownership: | 100 |
| ii. Any private or public water supply source: | 100 |
| iii. Surface waters: | 50 |
| iv. Any well with exception of monitoring wells: | 100 |
| v. Any property line: | 50 |

## III. OPERATION AND MAINTENANCE REQUIREMENTS

1. The facilities shall be properly maintained and operated at all times. The facilities shall be effectively maintained and operated as a non-discharge system to prevent the discharge of any wastewater resulting from the operation of this facility. The Permittee shall maintain an Operation and Maintenance Plan pursuant to 15A NCAC 02T .0507, which at a minimum shall include operational functions, maintenance schedules, safety measures and a spill response plan.

2. Upon the Water Pollution Control System Operators Certification Commission's (WPCSOCC) classification of the subject non-discharge facilities, in accordance with 15A NCAC 08G .0200 the Permittee shall designate and employ a certified operator in responsible charge (ORC) and one or more certified operator(s) as back-up ORC(s). The ORC or their back-up shall visit the facilities in accordance with 15A NCAC 08G .0200, and shall comply with all other conditions specified in the previously cited rules.

3. A suitable year round vegetative cover shall be maintained at all times, such that crop health is optimized, allows for even distribution of effluent and allows inspection of the irrigation system. Irrigation fields with a grass cover crop may be allowed to contain dormant grass during the cool weather season, as long as no wastewater irrigation occurs on these fields during that time. In addition, in order to maintain an acceptable spray overlap pattern in the wooded areas, the Permittee shall thin the undergrowth within the tree lanes.

4. Adequate measures shall be taken to prevent effluent ponding in or runoff from the irrigation sites listed in Attachment B.

5. Irrigation shall not be performed during inclement weather or when the ground is in a condition that will cause ponding or runoff.

6. All irrigation equipment shall be tested and calibrated at least once per permit cycle. Calibration records shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request.

7. Only effluent from the Sanderson Farms WWTF shall be irrigated on the sites listed in Attachment B.

8. No automobiles or machinery shall be allowed on the irrigation sites except during equipment installation or while maintenance is being performed.

9. Public access to the irrigation sites and wastewater treatment facilities shall be prohibited.

10. The residuals generated from the wastewater treatment facilities shall be disposed or utilized in accordance with 15A NCAC 02T .1100. The Permittee shall maintain a residual management plan pursuant to 15A NCAC 02T .0508.

11. Diversion or bypassing of untreated or partially treated wastewater from the treatment facilities is prohibited.

12. Freeboard in the 10.2 million gallon (MG) holding lagoon #1, 8.2 MG holding lagoon #2, 17.8 MG anaerobic lagoon and 5.1 MG waste sludge lagoon shall not be less than two feet at any time.

13. Gauges to monitor waste levels in the 10.2 million gallon (MG) holding lagoon #1, 8.2 MG holding lagoon #2, 17.8 MG anaerobic lagoon and 5.1 MG waste sludge lagoon shall be provided. These gauges shall have readily visible permanent markings indicating the following elevations: maximum liquid level at the top of the temporary liquid storage volume; minimum liquid level at the bottom of the temporary liquid storage volume; and the lowest point on top of the dam.

14. A protective vegetative cover shall be established and maintained on all earthen embankments (i.e., outside toe of embankment to maximum allowable temporary storage elevation on the inside of the embankment), berms, pipe runs, erosion control areas, and surface water diversions. Trees, shrubs, and other woody vegetation shall not be allowed to grow on the earthen dikes or embankments. Earthen embankment areas shall be kept mowed or otherwise controlled and accessible.

## IV. MONITORING AND REPORTING REQUIREMENTS

1. Any Division required monitoring (including groundwater, plant tissue, soil and surface water analyses) necessary to ensure groundwater and surface water protection shall be established, and an acceptable sampling reporting schedule shall be followed.

2. Per 15A NCAC 02H .0800, a Division certified laboratory shall conduct all laboratory analyses for the required effluent, groundwater or surface water parameters.

3. Flow through the treatment facility shall be continuously monitored, and daily flow values shall be reported on Form NDMR.

   The Permittee shall install and maintain an appropriate flow measurement device to ensure the accuracy and reliability of flow measurement consistent with accepted engineering and scientific practices. Selected flow measurement devices shall be capable of measuring flows with a maximum deviation of less than ten percent from true flow; accurately calibrated at a minimum of once per year; and maintained to ensure the accuracy of measurements is consistent with the selected device's accepted capability. The Permittee shall maintain records of flow measurement device calibration on file for a period of at least five years. At a minimum, documentation shall include:

   a. Date of flow measurement device calibration,
   b. Name of person performing calibration, and
   c. Percent from true flow.

4. The Permittee shall monitor the effluent from the subject facilities at the frequencies and locations for the parameters specified in Attachment A.

5. The Permittee shall maintain adequate records tracking the amount of effluent irrigated. At a minimum, these records shall include the following information for each irrigation site listed in Attachment B:

   a. Date of irrigation;
   b. Volume of effluent irrigated;
   c. Site irrigated;
   d. Length of time site is irrigated;
   e. Continuous weekly, monthly, and year-to-date hydraulic (inches/acre) loadings;
   f. Continuous monthly and year-to-date loadings for any non-hydraulic parameter specifically limited in Attachment B;
   g. Weather conditions; and
   h. Maintenance of cover crops.

6. Freeboard (i.e., waste level to the lowest embankment elevation) in the 10.2 million gallon (MG) holding lagoon #1, 8.2 MG holding lagoon #2, 17.8 MG anaerobic lagoon and 5.1 MG waste sludge lagoon shall be recorded weekly. Weekly freeboard records shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request.

7. Three copies of all monitoring data (as specified in Conditions IV.3. and IV.4.) on Form NDMR for each PPI and three copies of all operation and disposal records (as specified in Conditions IV.5 and IV.6.) on Form NDAR-1 for every site in Attachment B shall be submitted on or before the last day of the following month. If no activities occurred during the monitoring month, monitoring reports are still required documenting the absence of the activity. All information shall be submitted to the following address:

   Division of Water Quality
   Information Processing Unit
   1617 Mail Service Center
   Raleigh, North Carolina 27699-1617

8. A record shall be maintained of all residuals removed from this facility. This record shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. At a minimum, this record shall include:

   a. Name of the residuals hauler;
   b. Non-Discharge permit number authorizing the residuals disposal, or a letter from a municipality agreeing to accept the residuals;
   c. Date the residuals were hauled; and
   d. Volume of residuals removed.

9. A maintenance log shall be maintained at this facility. This log shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. At a minimum, this log shall include:

   a. Date of calibration of flow measurement device;
   b. Visual observations of the plant and plant site; and
   c. Record of preventative maintenance (e.g., changing of equipment, adjustments, testing, inspections and cleanings, etc.).

10. Monitoring wells shall be sampled after construction and within 3 months prior to initiating non-discharge disposal operations. Monitoring wells shall be sampled thereafter at the frequencies and for the parameters specified in Attachment C. All mapping, well construction forms, well abandonment forms and monitoring data shall refer to the permit number and the well nomenclature as provided in Attachment C and Figure 1.

11. For initial sampling of monitoring wells, the Permittee shall submit a Compliance Monitoring Form (GW-59) and a Well Construction Record Form (GW-1) listing this permit number and the appropriate monitoring well identification number. Initial Compliance Monitoring Forms (GW-59) without copies of the Well Construction Record Forms (GW-1) are deemed incomplete, and may be returned to the Permittee without being processed.

12. Two copies of the monitoring well sampling and analysis results shall be submitted on a Compliance Monitoring Form (GW-59), along with attached copies of laboratory analyses, on or before the last working day of the month following the sampling month. The Compliance Monitoring Form (GW-59) shall include this permit number, the appropriate well identification number, and one GW-59a certification form shall be submitted with each set of sampling results. All information shall be submitted to the following address:

    Division of Water Quality
    Information Processing Unit
    1617 Mail Service Center
    Raleigh, North Carolina 27699-1617

13. An annual representative soils analysis (i.e., Standard Soil Fertility Analysis) shall be conducted on each irrigation site listed in Attachment B. These results shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. At a minimum, the Standard Soil Fertility Analysis shall include the following parameters:

| | | |
|---|---|---|
| Acidity | Exchangeable Sodium Percentage | Phosphorus |
| Base Saturation (by calculation) | Magnesium | Potassium |
| Calcium | Manganese | Sodium |
| Cation Exchange Capacity | Percent Humic Matter | Zinc |
| Copper | pH | |

14. **Noncompliance Notification:**

The Permittee shall report by telephone to the Washington Regional Office, telephone number (252) 946-6481, as soon as possible, but in no case more than 24 hours, or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

a. Any occurrence at the facility resulting in the treatment of significant amounts of wastes that is abnormal in quantity or characteristic, including the known passage of a hazardous substance.

b. Any process unit failure (e.g., mechanical, electrical, etc.), due to known or unknown reasons, rendering the facility incapable of adequate wastewater treatment.

c. Any facility failure resulting in a by-pass directly to receiving surface waters.

d. Any time self-monitoring indicates the facility has gone out of compliance with its permit limitations.

e. Ponding in or runoff from the irrigation sites.

Any emergency requiring immediate reporting (e.g., discharges to surface waters, imminent failure of a storage structure, etc.) outside normal business hours shall be reported to the Division's Emergency Response personnel at telephone number (800) 662-7956, (800) 858-0368, or (919) 733-3300. Persons reporting such occurrences by telephone shall also file a written report in letter form within five days following first knowledge of the occurrence. This report shall outline the actions taken or proposed to be taken to ensure the problem does not recur.

## V. INSPECTIONS

1. The Permittee shall provide adequate inspection and maintenance to ensure proper operation of the wastewater treatment and irrigation facilities.

2. The Permittee or their designee shall inspect the wastewater treatment and irrigation facilities to prevent malfunctions, facility deterioration and operator errors resulting in discharges, which may cause the release of wastes to the environment, a threat to human health or a public nuisance. The Permittee shall maintain an inspection log that includes, at a minimum, the date and time of inspection, observations made, and any maintenance, repairs, or corrective actions taken. The Permittee shall maintain this inspection log for a period of five years from the date of the inspection, and this log shall be made available to the Division upon request.

3. Any duly authorized Division representative may, upon presentation of credentials, enter and inspect any property, premises or place on or related to the wastewater treatment and irrigation facilities permitted herein at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records required to be maintained under the terms and conditions of this permit, and may collect groundwater, surface water or leachate samples.

## VI. GENERAL CONDITIONS

1. Failure to comply with the conditions and limitations contained herein may subject the Permittee to an enforcement action by the Division in accordance with North Carolina General Statutes 143-215.6A to 143-215.6C.

2. This permit shall become voidable if the permitted facilities are not constructed in accordance with the conditions of this permit, the Division approved plans and specifications, and other supporting documentation.

3. This permit is effective only with respect to the nature and volume of wastes described in the permit application, Division approved plans and specifications, and other supporting documentation. No variances to applicable rules governing the construction or operation of the permitted facilities are granted, unless specifically requested and approved in this permit pursuant to 15A NCAC 02T .0105(n).

4. The issuance of this permit does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other jurisdictional government agencies (e.g., local, state, and federal). Of particular concern to the Division are applicable river buffer rules in 15A NCAC 02B .0200; erosion and sedimentation control requirements in 15A NCAC Chapter 4 and under the Division's General Permit NCG010000; any requirements pertaining to wetlands under 15A NCAC 02B .0200 and 02H .0500; and documentation of compliance with Article 21 Part 6 of Chapter 143 of the General Statutes.

5. In the event the permitted facilities change ownership or the Permittee changes their name, a formal permit modification request shall be submitted to the Division. This request shall be made on official Division forms, and shall include appropriate property ownership documentation and other supporting documentation as necessary. The Permittee of record shall remain fully responsible for maintaining and operating the facilities permitted herein until a permit is issued to the new owner.

6. The Permittee shall retain a set of Division approved plans and specifications for the life of the facilities permitted herein.

7. The Permittee shall maintain this permit until all permitted facilities herein are properly closed or permitted under another permit issued by the appropriate permitting authority pursuant to 15A NCAC 02T .0105(j).

8. This permit is subject to revocation or unilateral modification upon 60 days notice from the Division Director, in whole or part for the requirements listed in 15A NCAC 02T .0110.

9. Unless the Division Director grants a variance, expansion of the permitted facilities contained herein shall not be granted if the Permittee exemplifies any of the criteria in 15A NCAC 02T .0120(b).

10. The Permittee shall pay the annual fee within 30 days after being billed by the Division. Failure to pay the annual fee accordingly shall be cause for the Division to revoke this permit pursuant to 15A NCAC 02T .0105(e)(3).

Permit issued this the 23rd day of December 2009

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

Coleen H. Sullins, Director
Division of Water Quality
By Authority of the Environmental Management Commission

**Permit Number WQ0034380**

Permit No. WQ0034380
Sanderson Farms, Inc. (Processing Division)
Sanderson Farms WWTF

Wastewater Irrigation System
December 23, 2009
Lenoir County

## ENGINEERING CERTIFICATION

☐ Partial ☐ Final

In accordance with 15A NCAC 02T .0116, I,_____,
as a duly registered Professional Engineer in the State of North Carolina, having the Permittee's authorization to ☐ periodically ☐ weekly ☐ fully observe the construction of the permitted facility, hereby state to the best of my abilities that due care and diligence was used in the observation of the construction, such that the facility was built within substantial compliance and intent of this permit, the Division approved plans and specifications, and other supporting documentation.

☐ Any variation to this permit, the Division approved plans and specifications, and other supporting documentation has been documented in the attached as-built drawings, and shall serve as the Permittee's minor modification request to amend the permit accordingly.

Provide a brief narrative description of any variations: _____

_____

_____

_____

_____
Professional Engineer's Name

_____
Engineering Firm

_____
Mailing Address

_____ _____ _____
City State Zip

_____ _____
Telephone E-mail NC PE Seal, Signature & Date

**THE COMPLETED ENGINEERING CERTIFICATION, INCLUDING ALL SUPPORTING INFORMATION AND MATERIALS, SHALL BE SENT TO THE FOLLOWING ADDRESS:**

**NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES**
**DIVISION OF WATER QUALITY**
**AQUIFER PROTECTION SECTION**
**LAND APPLICATION UNIT**

By U.S. Postal Service:
1636 MAIL SERVICE CENTER
RALEIGH, NORTH CAROLINA 27699-1636

By Courier/Special Delivery:
2728 CAPITAL BOULEVARD
RALEIGH, NORTH CAROLINA 27604

**ATTACHMENT A - LIMITATIONS AND MONITORING REQUIREMENTS** **Permit Number: WQ0034380** **Version: 1.0**

**PPI 001 – WWTF Effluent**

| EFFLUENT CHARACTERISTICS | EFFLUENT LIMITS | | | | | | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter Description - PCS Code | Monthly Average | | Monthly Geometric Mean | | Daily Minimum | | Daily Maximum | | Measurement Frequency | Sample Type |
| BOD, 5-Day (20 Deg. C) – 00310 | | | | | | | | | 2 x Week | Composite |
| Calcium, Total (as Ca) – 00916 | | | | | | | | | Monthly | Composite |
| Chloride (as Cl) – 00940 | | | | | | | | | 3 x Year [1] | Composite |
| Coliform, Fecal MF, M-FC Broth, 44.5C – 31616 | | | | | | | | | 2 x Week [2] | Grab |
| Flow, in Conduit or thru Treatment Plant – 50050 | 1.400.000 | GPD | | | | | | | Continuous | Recording |
| Magnesium, Total (as Mg) – 00927 | | | | | | | | | Monthly | Composite |
| Nitrogen, Ammonia Total (as N) – 00610 | | | | | | | | | 2 x Week | Composite |
| Nitrogen, Kjeldahl, Total (as N) – 00625 | | | | | | | | | 2 x Week | Composite |
| Nitrogen, Nitrate Total (as N) – 00620 | | | | | | | | | 2 x Week | Composite |
| pH – 00400 | | | | | | | | | 5 x Week | Grab |
| Phosphorus, Total (as P) – 00665 | | | | | | | | | 2 x Week | Composite |
| Plant Available Nitrogen – WQ09 | | | | | | | | | 2 x Week | Calculated |
| Sodium Adsorption Ratio – 00931 | | | | | | | | | Monthly | Calculated |
| Sodium, Total (as Na) – 00929 | | | | | | | | | Monthly | Composite |
| Solids, Total Dissolved – 70300 | | | | | | | | | 3 x Year [1] | Composite |
| Solids, Total Suspended – 00530 | | | | | | | | | 2 x Week | Composite |

1. 3 x Year sampling shall be conducted during March, July and November.
2. Monthly average for Fecal Coliform shall be a geometric mean.

**PP1 002 – Surface Water Monitoring Station SW-1**

| EFFLUENT CHARACTERISTICS | EFFLUENT LIMITS | | | | | | | | MONITORING REQUIREMENTS | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter Description - PCS Code | Monthly Average | | Monthly Geometric Mean | | Daily Minimum | | Daily Maximum | | Measurement Frequency | Sample Type |
| Coliform, Fecal MF, M-FC Broth, 44.5C – 31616 | | | | | | | | | 3 x Year [1] | Grab |
| Nitrogen, Ammonia Total (as N) – 00610 | | | | | | | | | 3 x Year [1] | Grab |
| Nitrogen, Nitrate Total (as N) – 00620 | | | | | | | | | 3 x Year [1] | Grab |
| Nitrogen, Total (as N) – 00600 | | | | | | | | | 3 x Year [1] | Grab |
| pH – 00400 | | | | | | | | | 3 x Year [1] | Grab |
| Phosphorus, Total (as P) – 00665 | | | | | | | | | 3 x Year [1] | Grab |

1. 3 x Year sampling shall be conducted during March, July and November.

**ATTACHMENT B - APPROVED LAND APPLICATION SITES AND LIMITATIONS** **Permit Number: WQ0034380** **Version: 1.0**

**Sanderson Farms, Inc. (Processing Division) – Sanderson Farms WWTF**

| IRRIGATION AREA INFORMATION | | | | | | | APPLICATION LIMITATIONS | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Field | Owner | County | Latitude | Longitude | Net Acreage | Dominant Soil Series | Parameter | Hourly Rate | Yearly Max | Units |
| 1A | Sanderson Farms, Inc. | Lenoir | 35° 15' 01" | -77° 40' 04" | 22.4 | Lakeland | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 1B | Sanderson Farms, Inc. | Lenoir | 35° 15' 07" | -77° 40' 15" | 8.81 | Craven | 01284 – Application Surface Irrigation | 0.15 | 39.7 [1] | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 2A | Sanderson Farms, Inc. | Lenoir | 35° 14' 57" | -77° 40' 25" | 22.4 | Lakeland | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 2B | Sanderson Farms, Inc. | Lenoir | 35° 14' 50" | -77° 40' 28" | 10.4 | Goldsboro | 01284 – Application Surface Irrigation | 0.15 | 61.4 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 3A | Sanderson Farms, Inc. | Lenoir | 35° 14' 44" | -77° 40' 40" | 24.0 | Lakeland | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 3B | Sanderson Farms, Inc. | Lenoir | 35° 14' 38" | -77° 40' 39" | 3.51 | Goldsboro | 01284 – Application Surface Irrigation | 0.15 | 61.4 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 4A | Sanderson Farms, Inc. | Lenoir | 35° 14' 36" | -77° 40' 31" | 19.7 | Lakeland | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 4B | Sanderson Farms, Inc. | Lenoir | 35° 14' 39" | -77° 40' 33" | 8.14 | Goldsboro | 01284 – Application Surface Irrigation | 0.15 | 61.4 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 5A | Sanderson Farms, Inc. | Lenoir | 35° 14' 50" | -77° 40' 02" | 27.9 | Wagram | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 5B | Sanderson Farms, Inc. | Lenoir | 35° 14' 48" | -77° 40' 02" | 1.40 | Goldsboro | 01284 – Application Surface Irrigation | 0.15 | 61.4 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 6 | Sanderson Farms, Inc. | Lenoir | 35° 14' 39" | -77° 40' 15" | 30.0 | Kenansville | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 7 | Sanderson Farms, Inc. | Lenoir | 35° 14' 22" | -77° 40' 23" | 29.6 | Lakeland | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8A | Sanderson Farms, Inc. | Lenoir | 35° 14' 20" | -77° 40' 07" | 22.8 | Lakeland | 01284 – Application Surface Irrigation | 0.2 | 99 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| 8B | Sanderson Farms, Inc. | Lenoir | 35° 14' 15" | -77° 40' 01" | 1.84 | Goldsboro | 01284 – Application Surface Irrigation | 0.15 | 61.4 | inches |
| | | | | | | | WQ09 – Plant Available Nitrogen | | | lbs/ac |
| **Totals** | | | | | **232.8** | | | | | |

1. Field 1B shall be seasonally irrigated at a rate of 39.7 inches per year, where seasonal irrigation shall occur from March 15th through November 15th.